DOCUMENT RESUME

ED 361 520 CE 064 470

AUTHOR	Courtney, E. Wayne
TITLE	A Model System for the Design and Maintenance of Related Instruction Curriculum for Approved U.S. Department of Labor Apprenticeship Occupations. Phase I. Interim Evaluation Report [March 2, 1987]. Evaluation Update [June 18, 1987]. Evaluation Report [October 5, 1987]. Addendum Evaluation Update [November 24, 1987].
INSTITUTION	Lane Community Coll., Eugene, Oreg.
SPONS AGENCY	Fund for the Improvement of Postsecondary Education (ED), Washington, DC.
REPORT NO	G008642193
PUB DATE	87
NOTE	142p.; For Phase II reports, see CE 064 471, for Phase III reports, see CE 064 472 and ED 330 893.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Apprenticeships; *Clearinghouses; Databases; *Information Needs; *Instructional Materials; Objectives; Online Catalogs; *Program Development; Program Effectiveness; *Vocational Education
IDENTIFIERS	*Related Subjects Instruction

ABSTRACT

The four reports contained in this document cover the first phase of the Apprenticeship Training Materials Clearinghouse project, which is being conducted at Lane Community College in Eugene, Oregon. The interim evaluation report assesses phase 1 of the project by listing a series of 17 bechmark questions and providing answers to each. Attached to the report are a list of committee members, previous benchmark questions, previous evaluation updates, considerations for the apprenticeship clearinghouse to take under advisement, and sample record fields for the apprenticeship database. The evaluation update lists the strategy-activity status of the project's objectives. Appended to it are a gap analysis report for the new apprenticeship-related training curriculum materials clearinghouse and an outside consultant's report on computerized series of 17 benchmark questions and providing answers to the project management plan's four goals by posing and answering 17 benchmark questions. Its appendixes contain a list of advisory committee members and a user guide comment form. The addendum evaluation update includes new information pertaining to selected benchmark questions and four appendixes: project-related letters and program descriptions, a needs assessment report, sample processes for developing and updating, and field test site letters and reactions. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 361 520

A Model System for the Design and Maintenance of Related Instruction Curriculum for Approved U.S. Department of Labor Apprenticeship Occupations

Phase I

Lane Community College
Eugene, Oregon

U S DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it

☐ Minor changes have been made to improve reproduction quality

● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

CE 064 470

BEST COPY AVAILABLE

COVER SHEET

Grantee Organization: Lane Community College
4000 East 30th Avenue
Eugene, OR 97405

Grant No.: G008642193

Project Dates: Starting Date: October 1, 1986
Ending Date: September 30, 1989

Project Director: Carl Horstrup
Apprenticeship Coordinator
Lane Community College
4000 East 30th Avenue
Eugene, OR 97405
Telephone: (503) 747-4501, ext. 2843

FIPSE Program Officer:

This project established a national clearinghouse for apprenticeship related instructional materials. This project searched out quality training materials from all states and Canadian provinces. During this search process, an assessment of apprenticeship curriculum needs was made and curriculum gaps defined. A directory was produced and distributed to all 10 USDL BAT Regional and 50 State Offices and to several states' vocational curriculum centers. Continual progress reports were printed in the monthly national newsletter, USAA (United States Apprenticeship Association) Sentinel, which has membership in every state and U.S. territory. A computerized data base system was developed allowing additions and revisions as various sources become available for inclusion.

Carl Horstrup
Apprenticeship Coordinator
Lane Community College
4000 East 30th Avenue
Eugene, OR 97405
(503) 747-4501, ext. 2843

"A MODEL SYSTEM FOR THE DESIGN AND MAINTENANCE OF RELATED INSTRUCTION CURRICULA FOR APPROVED U.S. DEPARTMENT OF LABOR APPRENTICESHIP PROGRAMS"

Project Title: A Model System for the Design and Maintenance of Related Instruction Curricula for Approved U.S. Department of Labor Apprenticeship Programs

Grantee Organization: Lane Community College
4000 East 30th Avenue
Eugene, OR 97405

Project Director: Carl Horstrup
Apprenticeship Coordinator
(503) 747-4501, ext. 2843

A. Project Overview

As a result of the clearinghouse activities and the models for design of materials, a planned approach to curriculum development emerged. Individual states will no longer develop materials that already exist in other states. Curriculum design and development were targeted toward the unmet needs of apprenticeship. The cooperating states became involved in joint planning and development of materials for shared use.

B. Purpose

Apprenticeship related training is scattered throughout hundreds of post-secondary institutions, trade associations. labor councils and private companies. Many good curriculum materials have been developed for apprentice related instruction. This proposal sought to identify those materials that have been developed; identify areas where additional materials are needed; establish models for design and development of materials; and establish a computerized system for storing, organizing and retrieving curriculum materials from a centralized data base and repository for printed materials.

C. Background & Origins

If apprenticeship related training is to remain a viable approach to the education of our work force, all apprenticeable trades must be served by the program. The low enrollment trades have been denied such training because it has never been cost effective for community colleges to deliver to small numbers of students. The clearinghouse will do much toward resolving the low enrollment problems as an extensive resource bank of individualized modules are now available through it.

D. Project Descriptions

As materials become readily available for review in the field, users will find a greater need for updating old materials. Many good materials were developed in the 1970's but have become out-of-date. These materials can now be rapidly updated to the recent technological changes. Unfortunately, most curriculum has been developed with grant funds. After the funding stops, there is little incentive for updating the materials. Hopefully, the clearinghouse concept will create a greater awareness of the national investment in curriculum development and develop a demand for updating. Updating is highly cost-effective when compared to new curriculum development.

E. Project Results

1. Produced the directory which was distributed to all 10 USDL BAT Regional and 50 State Offices.

2. USDL BAT through its "Apprenticeship 2000 Phase II" recently awarded three grants and two contracts in support of this endeavor. These demonstration projects will be concluded within two years. One specific award to FU Associates deals with National Registration. This project will involve study and development of recommendations regarding a national on-line apprenticeship system and a "scientific" system for determining the apprentice-ability of an occupation. Our directory and data base will serve as the base to determine the availability of occupational related training curricula.

3. Vocational Curriculum Centers from Alaska, Republic of Palau, Arkansas, California, Colorado, Hawaii, Idaho, Illinois, Iowa, Kansas, Maine, Mississippi, Minnesota, Missouri, Nebraska, New Jersey, New Mexico, North Dakota, Oklahoma, Oregon, Pennsylvania, Washington, and Washington, D.C. were presented copies of the directory at the recent Third Annual Conference for Library and Resource Center Staff in Portland, Oregon.

4. Continual progress reports were printed in the monthly national newsletter USAA (United States Apprenticeship Association) Sentinel which has membership in every state and U.S. territory. USAA is an organization dedicated exclusively to the protection and betterment of apprenticeship.

5. A computerized data base system was developed that allows additions and revisions as various sources become available for inclusion.

F. Summary and Conclusions

Evaluation reports submitted throughout the duration of this project by the third party evaluator, Mr. E. Wayne Courtney, continually indicated satisfactory completion within the overall objectives in accordance with the conditions of the grant. Copies of these evaluations are on file with USDE, FIPSE Office in Washington, D.C.

APPENDICES

1. a. What forms of assistance from FIPSE were helpful to you?--All project coordinators were always cordial and helpful, regardless of the type of our concerns.

   b. How can FIPSE more effectively work with projects?--Procedures to reallocate funds within the approved budget need to be streamlined.

2. a. What should the FIPSE staff consider in reviewing future proposals in your

area of interest?--Provide accurate information of upcoming RFP's during FIPSE Project Directors' meetings, rather than make pacifying statements, seemingly to justify the attendance of the session speakers.

b. What are emerging new directions?--Need for development of curriculum and test training sessions for (1) hazardous waste removal and (2) drug, alcohol, AIDs, etc. for all apprenticeship and journeyman programs.

c. What are key considerations, given your type of project?--Continual issuance of future awards to projects which develop linkage projects of areas of lesser numbers.

Body of Final Report

Apprenticeship programs are an essential ingredient in the American industrial system. Without trained electronics technicians, aircraft mechanics, manufacturing plant electricians, boiler operators, utility linemen, pipefitters, millwrights, laboratory technicians, or any of the other more than 700 apprenticeable occupations, new and existing businesses would find it difficult to operate efficiently and competitively.

Apprenticeship programs combine daily on-the-job training with instruction in technical subjects so that apprentices are exposed to all the required skills and knowledge necessary for their chosen trades. Apprentices learn the practical aspects on the job by being assigned to all phases of their respective occupations. Theoretical aspects are mastered during related classroom training, providing an opportunity for the apprentice to consider, in depth, the underlying principles governing various job activities, thereby enhancing the individual's life-long employability and guaranteeing more competent workers for industry.

Federal regulations mandate that all registered apprentices receive at least 144 hours per year of related classroom training. This training includes technical knowledge, auxiliary information and occasional manipulative skills. For example, subject matter includes trade math, blueprint reading, tool identification, human relations, safety and communications.

This project established a national clearinghouse for apprenticeship related instructional materials. This project searched out quality training materials from all states and Canadian provinces. During this search process, an assessment of apprenticeship curriculum needs was made and curriculum gaps defined.

Outcomes include increased availability of quality materials, expanded apprenticeship training, cost-effective materials, up-to-date materials, time savings for curriculum planners and a partial solution to the low enrollment problem in apprenticeship. The project was organized into three phases--development, field test, and dissemination. A third party evaluator evaluated the processes, products and impact of this project during the three-year time frame. Evaluation findings were utilized to make on-going modifications in the project plan.

This project utilized approved research techniques for identifying apprenticeship related instructional materials in current use. The project coordinator conducted national searches on the BRS computerized system and other systems. The results of national searches were cross-referenced to assure that all data bases have been sampled.

Our data base records have been registered into the UNIX system. The restructuring of the downloaded records precludes duplication into any copyright databases. A total of 2,647 records have been read into the program for purposes of initial use. Abstracts will not be loaded because of potential copyright problems. Records have been utilized from the following sources:

National Technical Information Service (NTIS)--341 records
Vocational Education Curriculum Materials (VECM)--745 records
Research in Vocational Education (RIVE)--543 records
ERIC--1,008 records

The project has purposely avoided the Ontario Education Reports (ONED), AV On-line Multimedia, and NICEM documents because of the copyright matter (see Appendix for original list of databases). The policy of the project staff is to avoid confrontation with the copyright issue.

As the documentation of the vendors was completed, the database could be searched by specific topics in the materials type (MT) field by company name, location, area code, etc. The input form contains a basic information capability with the addition of a FAX number, with the telephone number being split into two fields, listing toll and toll-free status. The finished project contains at least three sections listing the resource by material type, vendor type, and by geographical location.

State Departments of Education, state and national apprenticeship organizations, trade unions and private industry were contacted about material being utilized in training apprentices. These contacts identified the materials being used and itemized their shortfalls in training materials. The results of the field research served to identify "what exists" and "what should be" in apprenticeship related training materials. Once the field needs were clearly identified, the project utilized a task inventory process with local apprenticeship committees to identify specific content needed in selected curriculum areas.

Post secondary educational programs and courses require a minimum number of enrollees, usually ten to sixteen, to create a class. Frequently, the number of apprentices who require instruction in a particular class in a given geographic area will be too small to create a formal class. Low enrollment has been identified as one of the two most critical problems in the delivery of apprenticeship related classroom training in post-secondary institutions.

The low enrollment problem can only be met through individualized instructional programs. Individualized materials allow one instructor to work with class-sized groups made up of apprentices from several trades areas. In practice, individualization refers to services that can be rendered to small companies rather than to single individuals. A wide variety of self-paced instructional modules were made available for "tailor-making" programs for apprentices in low enrollment trades. Many good materials have been developed in the United States and Canada to enhance individualized instruction. There is now an information clearinghouse for obtaining materials in a timely manner.

Each state has developed materials according to its own priorities in apprenticeship. This use to result in duplications of efforts in some trades and a total lack of available curriculum in other occupations. A computerized data base, specific to apprenticeship, was needed to allow instant access to all available materials. The newly developed data base and materials repository allow post-secondary institutions to select and order materials with minimum time and effort spent.

Availability of Materials

Apprenticeship related training is greatly improved as a result of making a selection of instructional materials accessible to the user. With all materials in a centralized location, users can be assured of finding the best materials for their programs. The system allows for full-text reviews of microfiche so that users can select materials appropriate to their programs.

Expanded Apprenticeship Programs

Through curriculum sharing more apprentices will be served. The low enrollment trades can be provided with training through the individualized instructional modules made available through the clearinghouse. With the vast number of modules in the clearinghouse library, training programs can be tailored for small groups at a cost effective rate.

Cost Effectiveness

The resources for curriculum development are scarce and continually shrinking at the local levels of education. Sharing of resources eliminates the need for developing new curriculum for many areas. The existing resources can be targeted at the areas of critical need. Low enrollment programs can be served with cost-effectiveness since many materials are readily available for "tailor made" programs. The federal government encourages cooperative programs between institutions and industry as a strategy for cost effectiveness. This project promoted sharing on a national scope. With a target audience of fifty states and Canada, the services are more cost effective than individual institutions working on their own.

Time Efficiency

The easy access to instructional materials in a clearinghouse will result in a great time savings. A user institution can, within the hour, determine if suitable materials are available. They will not need to go through weeks of searching through various states, brotherhoods and corporations to find curriculum materials. The time savings can be redirected toward meeting the needs of apprentices who do not have related training available to them.

Updated Curriculum Materials

The clearinghouse made quality judgments on the materials entered into the data base. The user can be assured that materials in the clearinghouse are technologically sound and usable. Criteria was established for acceptance of materials into the data bank. This criteria was applied to each document entered into the data bank.

Planned Curriculum Development

As a result of the clearinghouse activities and the models for design of materials, a planned approach to curriculum development emerged. Individual states will no longer have to develop materials that already exist in other states. Curriculum design and development was targeted toward the unmet needs of apprenticeship. The cooperating states became involved in joint planning and development of materials for shared use.

Emphasis on Updating Materials

As materials become readily available for review in the field, users will find a greater need for updating old materials. Many good materials were developed in the 1970's but have become out-of-date. These materials can be rapidly updated to the recent technological changes. Unfortunately, most curriculum has been developed with grant funds. After the funding stops, there is little incentive for updating the materials. Hopefully, the clearinghouse concept will create a greater awareness of the national investment in curriculum development and develop a continued demand for updating. Updating is highly cost-effective when compared to new curriculum development.

Solution to Low Enrollment Problem

If apprenticeship related training is to remain a viable approach to the education of our work force, all apprenticeable trades must be served by the program. The low enrollment trades have been denied such training because it has never been cost effective for community colleges to deliver to small number of students. The clearinghouse has done much toward resolving the low enrollment problem. The extensive resource bank of individualized modules is made available through the clearinghouse and institutions can "tailor make" programs for the low enrollment areas and remain cost effective in the delivery of training to these groups. Although the low enrollment problem could not be totally resolved in the time frame of this project, a good start was made during these three years. The project will provide leadership for nationwide treatment of the problem.

Involvement in the Technologies of Education

Apprenticeship training has long been regarded as "hands on" training. Today's apprentices need a heavy knowledge component in their training. Since the community college system is responsible for much of the related training, apprenticeship is an integral part of public education. The technologies of education must be emphasized in apprenticeship training along with the skills of the work place. This project is research based and delivered by computer. The apprenticeship programs will benefit from using these technologies and will move toward increased use of educational research, instructional strategies and electronic helpers to deliver training to apprentices.

INTERIM EVALUATION REPORT

A MODEL SYSTEM FOR THE DESIGN AND MAINTENANCE OF RELATED INSTRUCTION CURRICULA FOR APPROVED U. S. DEPARTMENT OF LABOR APPRENTICESHIP PROGRAMS

CARL HORSTRUP, PROJECT DIRECTOR
LANE COMMUNITY COLLEGE
4000 EAST 30TH STREET
EUGENE, OREGON 97405

SUBMITTED BY
E. WAYNE COURTNEY, THIRD PARTY EVALUATOR
3220 N.W. ARROWOOD CIRCLE
CORVALLIS, OREGON 97330
(503) 758-7325

MARCH 2, 1987

INTRODUCTION

This third party evaluation interim reports that period of the project 'A Model System for the Design and Maintenance of Related Instruction Curricula for Approved U.S. Department of Labor Apprenticeship Programs' from its inception to the present time. The project, funded by the U.S. Department of Education, completes its initial phase on June 30, 1987. The duration of the project extends to June 30, 1989 for the multi-year grant. A non-competitive continuation application for the next phase funding is being submitted in the near future. The project itself falls within the scope of the Fund For the Improvement of Postsecondary Education. The project is being directed by Carl Horstrup, Apprenticeship Coordinator, Lane Community College, Eugene, Oregon. First year funding for the project totalled $151,123.

The project's primary objective is to establish a national clearinghouse for apprenticeship related instructional materials. The scope of the project covers the development of a computerized database for accessing instructional materials in the apprenticeship area. The intent is to make printed materials available via computer based hardware as well as to provide users with hardcopy. The project's goal is to search out relevant materials from sources in the United States and Canada, assess the worth of these collected materials, and to prepare a model for access and use by those who have need for apprenticeship materials for instruction. The first phase included the development of the model, materials collection, and preparation for the field testing of the model.

The third party evaluator's role during the first phase was to evaluate the processes, products, and impact of the project in the fulfillment of its objectives during the timeframe covered by the phase. This interim report summarizes the results of two previously submitted evaluation updates for the project (attached and dated November 1, 1986 and February 16, 1987) and makes the evaluation current. The interim report utilizes evaluation instruments which were deemed to be acceptable by both the Project Director, the Project Coordinator, and the Project Advisory Committee.

THE MANAGEMENT PLAN

The Phase I (Development) plan for the Apprenticeship Clearinghouse Project encompassed four major goals along with supporting objectives. These included the following:

Goal 1.0 Assess availability and need for apprenticeship related instructional materials.

Objective 1.1 Identify instructional materials.
Objective 1.2 Develop a printed directory of materials, their sources, and access.
Objective 1.3 Conduct a descriptive analysis on the gap between available and needed materials.

Goal 2.0 Design instructional materials.

Objective 2.1 Identify need areas for future curriculum development.
Objective 2.2 Recommend processes for instructional materials development.

Goal 3.0 Provide easy access to instructional materials.

Objective 3.1 Establish a computerized database.
Objective 3.2 Establish a library of printed materials.

Goal 4.0 Conduct field tests on products and processes.

Objective 4.1 Conduct field test on clearinghouse services.
Objective 4.2 Analyze results of field testing.

Seventeen (17) benchmark questions plus the Evaluator Checklist (see attached) formulate the basis for the Third Party evaluation. The benchmark questions provide qualitative reactions to the various goals and objectives while the Checklist reports quantitative information based upon the judgments of the Evaluator. The benchmark questions are reported below.

EVALUATIONS OF BENCHMARK QUESTIONS

QUESTION 1. DID THE ADVISORY COMMITTEE FUNCTION IN AN EFFECTIVE WAY AND MAKE A REAL CONTRIBUTION?

THE PROJECT'S ADVISORY COMMITTEE, CONSISTING OF NINE (9) MEMBERS WHO REPRESENT VARIOUS APPRENTICESHIP INTERESTS, HAVE HELD TWO MEETINGS DURING THE PRESENT PHASE. BOTH OF THE DAY-LONG SESSIONS OF THE COMMITTEE, WHICH MET AT THE HOLIDAY INN IN PORTLAND, OREGON ON OCTOBER 15 AND DECEMBER 1, 1986, EFFECTIVELY HANDLED THE PROBLEM OF RECOMMENDING DIRECTION AND REFERENCING FOR THE PLANNED CLEARINGHOUSE GOALS AND OBJECTIVES. DETAILS OF THESE MEETINGS ARE SHOWN IN EVALUATION UPDATES 1 AND 2. A LISTING OF ADVISORY COMMITTEE MEMBERS IS ATTACHED.

QUESTION 2. WERE THE COMPUTERIZED SEARCHES OF NATIONAL DATABASES CONDUCTED EFFICIENTLY?

THE 750 APPLIED TRADE OCCUPATIONS WHICH HAVE BEEN RECOGNIZED AS APPRENTICESHIP IN CHARACTER BY THE BUREAU OF APPRENTICESHIP AND TRAINING HAVE BEEN FITTED INTO THIRTEEN (13) CLUSTER AREAS BY THE PROJECT COORDINATOR. THESE AREAS WERE USED AS THE BASIS FOR ORGANIZING MATERIALS FOR THE PROJECT. THE INITIAL COMPUTER SEARCH, WHICH EXTENDED BACK TO 1970 ENTRIES, INCLUDED ONLY ERIC IN ITS DIMENSIONS, WITH THE ADVISORY COMMITTEE SELECTING THOSE OUTPUT LISTINGS WHICH SEEMED MOST WORTHY OF BEING RETAINED IN THE CLEARINGHOUSE DATABASE. OVER ONE-HALF OF THE REFERENCES WERE DELETED AS A RESULT OF THE ADVISORY COMMITTEE RECOMMENDATIONS. A FURTHER REFINEMENT OF THE ERIC BASED REFERENCES IS PLANNED FOR THE SPRING, 1987 MEETING OF THE GROUP. IT IS ANTICIPATED THAT FURTHER COMPUTER SEARCHES WILL BE MADE FOR APPRENTICESHIP MATERIALS WHICH ARE REFERENCED IN NTIS AND IN GOVERNMENT REPORT ANNOUNCEMENTS.

QUESTION 3. WERE THE APPRENTICESHIP INSTITUTIONS CONTACTED ACCORDING TO THE PROPOSAL SCHEDULE?

OVER 150 MATERIALS INFORMATION REQUEST LETTERS WERE MAILED TO PROSPECTIVE INSTITUTIONS IN THE UNITED STATES AND CANADA DURING OCTOBER, 1986. AS OF JANUARY 9, 1987, SOME 2000 RESOURCE DOCUMENTS WERE IDENTIFIED AND OBTAINED FROM THE PUBLIC SECTOR. PRIVATE SOURCES HAVE BEEN CONTACTED AND ARE AT PRESENT REACTING TO REQUESTS FOR MATERIALS. IN ADDITION, THE PROJECT ANNOUNCEMENTS MADE IN THE OCTOBER AND FEBRUARY ISSUES OF THE USAA SENTINEL, THE U.S. APPRENTICESHIP ASSOCIATION'S OFFICIAL NEWSLETTER, HAVE BROUGHT NATIONAL VISIBILITY TO THE PROJECT'S GOALS.

QUESTION 4. WERE THE FINDINGS OF THE SEARCHES AND INSTITUTIONAL CONTACTS SUMMARIZED IN A SATISFACTORY MANNER?

BOTH PUBLIC AND PRIVATE SOURCES HAVE BEEN UTILIZED IN THE SEARCHES FOR INSTRUCTIONAL REFERENCES AND HARDCOPY MATERIALS RELATED TO APPRENTICESHIP TRAINING PROGRAMS. SUMMARIES OF THE RESULTS OF THE VARIOUS SEARCHES ARE NOT YET COMPLETED BUT ARE PLANNED FOR THIS PHASE.

QUESTION 5. WAS A PRINTED DIRECTORY OF APPRENTICESHIP MATERIALS DEVELOPED TO INCLUDE THEIR SOURCES AND ACCESSIBILITIES?

THE NECESSARY REFERENCING AND SOURCE BIBLIOGRAPHIES ARE BEING COMPILED TO COVER THE PRINTED DIRECTORY REQUIREMENTS. THE SELECTION OF AN APPROPRIATE DISSEMINATION SYSTEM FOR THE FINDINGS WILL DICTATE THE NATURE AND FORMAT FOR THE PRINTING OF MATERIALS.

QUESTION 6. WAS A DESCRIPTIVE ANALYSIS COMPLETED WHICH DETAILED THE GAPS BETWEEN AVAILABLE AND NEEDED INSTRUCTIONAL MATERIALS?

THIS BENCHMARK IS SCHEDULED FOR COMPLETION DURING APRIL, 1987. THE GENERAL NEEDS FOR EACH STATE AND PROVINCE HAVE BEEN REQUESTED AND WILL BE PRIORITIZED ACCORDING TO THE PROJECT'S ACTIVITY LISTING. GAPS BETWEEN WHAT EXISTS AND WHAT IS NEEDED WILL BE ASSESSED AS SOON AS PRIORITIES ARE SET.

QUESTION 7. WERE FINDINGS DESCRIBING AVAILABLE MATERIALS AND NEEDED RESOURCES DISSEMINATED TO THOSE INSTITUTIONS PARTICIPATING IN THE PROJECT?

THIS BENCHMARK CANNOT BE COMPLETED UNTIL QUESTION 6 HAS BEEN RESOLVED. THE TIMELINE SET FOR THE DISSEMINATION OF MATERIALS IS APRIL, 1987.

QUESTION 8. WERE TASK INVENTORY CHECKLISTS IDENTIFIED FOR EACH AREA AND RESPONDED TO BY LOCAL TRADE COUNCILS?

THE DEVELOPMENT SCHEDULE OF THE CHECKLISTS FOR EACH AREA IS SET FOR MAY, 1987. THE PROJECT PLAN CALLS FOR THE USE OF FIVE (5) LOCAL TRADE COUNCILS OF EACH APPRENTICESHIP TRADE TO RESPOND TO SPECIFIC NEEDS ON THE TASK INVENTORY CHECKLIST.

QUESTION 9. WERE LISTS OF SPECIFIC MODULES RECOMMENDED FOR FUTURE CURRICULUM DEVELOPMENT?

THIS QUESTION WILL BE DEALT WITH DURING THE MAY-JUNE 1987 TIMEFRAME. SPECIFIC TASK NEEDS MUST BE IDENTIFIED THROUGH THE TASK INVENTORY CHECKLISTS BEFORE RECOMMENDATIONS CAN BE ESTABLISHED FOR FUTURE CURRICULUM WORK.

QUESTION 10. WAS A SIMPLIFIED PROCESS RECOMMENDED FOR DEVELOPING NEW APPRENTICESHIP INSTRUCTIONAL MATERIALS?
QUESTION 11. WAS A PROCEDURE IDENTIFIED FOR UPDATING OLD INSTRUCTIONAL MATERIALS?

THESE ACTIVITIES ARE SCHEDULED FOR COMPLETION DURING MAY-JUNE, 1987.

QUESTION 12. WAS A OOMPUTERIZED DATABASE FOR APPRENTICESHIP MATERIALS ESTABLISHED?

NUMEROUS EXISTING MODELS FOR THE COMPUTERIZED DATABASE HAVE BEEN OBSERVED AND DISCUSSED. A MEETING WITH DR. PHILIP PIELE, DIRECTOR OF THE ERIC CLEARINGHOUSE ON EDUCATIONAL MANAGEMENT, CENTER FOR ADVANCED TECHNOLOGY IN EDUCATION, VERIFIED COPYRIGHT PROVISIONS WHICH WERE APPLICABLE TO THE APPRENTICESHIP PROJECT AS THEY APPLIED TO ERIC RESOURCES. DR. PIELE RECOMMENDED THE USE OF BOTH CD-ROM AND ON-LINE STORAGE COMPONENTS FOR CONSIDERATION AS THE DATABASE FOR THE APPRENTICESHIP CLEARINGHOUSE MATERIALS. THESE AND OTHER DATABASE SYSTEMS HAVE BEEN DISCUSSED WITH KAREN STARR OF THE PACIFIC CREST RESEARCH AND SERVICES CORPORATION. A DESCISION IS FORTHCOMING REGARDING THE SYSTEM WHICH WILL BE ADOPTED FOR THE PROJECT.

QUESTION 13. WERE DATABASE CONSIDERATIONS MADE FOR MODEM SEARCHES, CODING, USER GUIDE DEVELOPMENT, AND UPDATING AND EXPANSION.?

THE FEBRUARY MEETING OF THE CLEARINGHOUSE STAFF SUGGESTED THAT THE DATABASE SYSTEM BE DEVELOPED TO ACCOMMODATE TWO LEVELS; NAMELY, THE CD-ROM CONCEPT AND A FLOPPY DISK APPLICATION FOR THE USER. CD-ROM REFERENCE INFORMATION HAS BEEN PROVIDED TO THE PROJECT DIRECTOR BY PHILIP PIELE WHILE KAREN STARR HAS ENUMERATED ON THE RECORDS AND RECORD FIELDS FOR THE APPRENTICESHIP DATABASE (SEE ATTACHED DOCUMENT DATED FEBRUARY 19, 1987). THESE CONSIDERATIONS ARE PRESENTLY BEING DISCUSSED WITH THE PROJECT MONITOR IN WASHINGTON. A DECISION ON THE MATTER OF DATABASE IS NECESSARY TO THE DEVELOPMENT AND WRITING OF THE USER GUIDE.

QUESTION 14. WERE PROVISIONS MADE TO ESTABLISH A LIBRARY OF PRINTED MATERIALS?

THE FIELDS WHICH SHOULD BE INCLUDED IN THE RECORDS APPEARING IN THE APPRENTICESHIP DATABASE HAVE BEEN RECOMMENDED (SEE ATTACHED DOCUMENT 'RECORD FIELDS FOR THE APPRENTICESHIP DATABASE). IT IS ANTICIPATED THAT THESE RECOMMENDATIONS WILL FORM THE BASIS FOR THE ESTABLISHMENT OF A LIBRARY OF PRINTED MATERIALS.

QUESTION 15. WERE PRINTED 'ON-ORDER' COPIES OF MATERIALS PROVIDED TO COOPERATING INSTITUTIONS?

ORDERING INFORMATION AND OTHER DISSEMINATION GUIDELINES ARE SCHEDULED FOR THE APRIL-JUNE TIME PERIOD OF THE PROJECT.

QUESTION 16. WERE FIELD TESTS ADEQUATELY UTILIZED FOR ASSESSING THE PRODUCTS AND PROCESSES?

THE FIELD TEST PHASE OF THE PROJECT IS SCHEDULED FOR THE SUMMER OF 1987. THE LEAGUE OF INNOVATION IS READY TO CONDUCT THE FIELD TESTING OF THE MATERIALS AND THE MODEL USING NINETEEN (19) COMMUNITY COLLEGES IN THE UNITED STATES AND CANADA. THIS SCHEDULED TESTING CANNOT OCCUR UNTIL DECISIONS ARE MADE FOR THE DATABASE AND UNTIL THE USER GUIDE IS COMPLETED.

QUESTION 17. WERE TIMELINES MET ACCORDING TO THE PROJECT PROPOSAL PLAN?

TO DATE, THE PROJECT PLAN APPEARS TO BE ON SCHEDULE. HOWEVER, THE DECISIONS REGARDING DATABASE AND USER APPLICATIONS FOR THE PROJECT ARE CRITICAL TO MAINTAINING THIS TIMETABLE. THE FIELD TESTING OF THE MATERIALS AND THE EVALUATION OF THE MODEL IS PLANNED FOR THE SUMMER OF 1987. UNLESS THERE IS A CLEAR DECISION SOON REGARDING THE ISSUE OF DATABASE TYPE, THE USER GUIDE CANNOT BE READIED IN TIME AND THE PROJECT TIMELINES WILL FALL BEHIND SCHEDULE.

SUMMARY REMARKS

THE PROJECT'S PRIMARY OBJECTIVE OF ESTABLISHING A NATIONAL CLEARINGHOUSE FOR APPRENTICESHIP RELATED INSTRUCTIONAL MATERIALS IS WELL UNDERWAY. THE STRENGTHS OF THE FIRST PHASE OF THE PROJECT REVOLVE AROUND THE EFFECTIVE USE OF AN ADVISORY COMMITTEE, SEARCHES OF NATIONAL DATABASES, AND THE PREPARATION OF A COMPUTERIZED DATABASE FOR CLEARINGHOUSE USE. CRITICAL TO THE PROJECT'S SUCCESS AND CONTINUATION IS THE ESTABLISHMENT OF THE COMPUTERIZED SYSTEM FOR ACCESSING INSTRUCTIONAL MATERIALS FOR USERS AND THE FIELD TESTING OF PRODUCTS AND PROCESSES TO BE UTILIZED WITHIN THE FUTURE CLEARINGHOUSE OPERATION. TO THIS DATE, MOST OF THE PLANNED GOALS AND THEIR ACCOMPANYING ACTIVITIES ARE ON SCHEDULE ACCORDING TO THE TIMETABLE WHICH IS SET FORTH IN THE PROJECT PROPOSAL.

ATTACHMENTS

Advisory Committe Membership
Benchmark Questions (Phase I - 1986-87)
Evaluation Update #1 dated 1 November 87
Evaluation Update #2 dated 16 February 87
Considerations for the Apprenticeship Clearinghouse
(Memorandum from Karen Starr dated 19 February 87)
Record Fields for the Apprenticeship Database
(Report from Karen Starr dated 19 February 87)

ADVISORY COMMITTEE MEMBERSHIP
APPRENTICESHIP CLEARINGHOUSE PROJECT

SHERRIL WELLS, ASSOCIATE DEAN OF INSTRUCTION
UMPQUA COMMUNITY COLLEGE
P.O. BOX 967, ROSEBURG, OR 97470-0226

WES SWANGER, BAC #6 OREGON
P.O. BOX 7733, EUGENE, OR 97401

JEFF TRIPLETT, DEPUTY ADMINISTRATOR
OBLI
1400 S.W. 5TH STREET, PORTLAND, OR 97201

CAROL STONE, DIRECTOR
HOT FOODS
3520 S.E. YAMHILL, PORTLAND, OR 97214

MIKE MURPHY, BUSINESS MANAGER
IBEW 280
P.O. BOX 3138, SALEM, OR 97302

CLEVELAND RANDLE, SENIOR PROGRAM ADVISOR
U.S. DEPARTMENT OF EDUCATION
REPORTER'S BUILDING ROOM 610
7TH AND 'D' S.W., WASHINGTON, D.C. 20202

CHARLES GANTER
c/o FREIGHTLINER
5400 N. BASIN, PORTLAND, OR 97217

RALPH LITTLE, SPECIALIST
OREGON DEPARTMENT OF EDUCATION
700 PRINGLE PARKWAY S.E., SALEM, OR 97310

CARL SORENSON, USDL STATE SUPERVISOR
FOB 1220 S.W. 3RD AVE, ROOM 528, PORTLAND, OR 97204

BENCHMARK QUESTIONS
APPRENTICESHIP PROJECT - LANE COMMUNITY COLLEGE
PHASE I (1986-87)

1. DID THE ADVISORY COMMITTEE FUNCTION EFFECTIVELY AND MAKE A REAL CONTRIBUTION?
2. WERE THE COMPUTERIZED SEARCHES OF NATIONAL DATA BASES CONDUCTED EFFICIENTLY?
3. WERE THE APPRENTICESHIP INSTITUTIONS CONTACTED ACCORDING TO THE PROJECT PROPOSAL SCHEDULE?
4. WERE THE FINDINGS OF THE SEARCHES AND INSTITUTIONAL CONTACTS SUMMARIZED IN A SATISFACTORY MANNER?
5. WAS A PRINTED DIRECTORY OF APPRENTICESHIP MATERIALS DEVELOPED TO INCLUDE THEIR SOURCES AND ACCESSIBILITIES?
6. WAS A DESCRIPTIVE ANALYSIS COMPLETED WHICH DETAILED THE GAPS BETWEEN AVAILABLE AND NEEDED INSTRUCTIONAL MATERIALS?
7. WERE FINDINGS DESCRIBING AVAILABLE MATERIALS AND NEEDED RESOURCES DISSEMINATED TO THOSE INSTITUTIONS PARTICIPATING IN THE PROJECT?
8. WERE TASK INVENTORY CHECKLISTS IDENTIFIED FOR EACH AREA AND RESPONDED TO BY LOCAL TRADE COUNCILS?
9. WERE LISTS OF SPECIFIC MODULES RECOMMENDED FOR FUTURE CURRICULUM DEVELOPMENT?
10. WAS A SIMPLIFIED PROCESS RECOMMENDED FOR DEVELOPING NEW APPRENTICESHIP INSTRUCTIONAL MATERIALS?
11. WAS A PROCEDURE IDENTIFIED FOR UPDATING OLD INSTRUCTIONAL MATERIAL?
12. WAS A COMPUTERIZED DATA BASE FOR APPRENTICESHIP MATERIAL ESTABLISHED?
13. WERE DATA BASE CONSIDERATIONS MADE FOR:
    - ALLOWING MODEM SEARCHES?
    - CODING OF MATERIALS?
    - DEVELOPMENT OF A USER GUIDE?
    - UPDATING AND EXPANDING?
14. WERE PROVISIONS MADE TO ESTABLISH A LIBRARY OF PRINTED MATERIALS?
15. WERE PRINTED 'ON-ORDER' COPIES OF MATERIALS PROVIDED TO COOPERATING INSTITUTIONS?
16. WERE FIELD TESTS ADEQUATELY UTILIZED FOR ASSESSING THE PRODUCTS AND PROCESSES?
17. WERE TIMELINES MET ACCORDING TO THE PROJECT PROPOSAL PLAN?

1 November 1986

TO: Carl Horstrup, Project Director
cc: Burr Fancher

FROM: E. Wayne Courtney, Third Party Evaluator

Re: Evaluation Update #1

The Apprenticeship Training Materials Clearinghouse Project was initiated at Lane Community College on October 1, 1986. Partial planning and evaluation activities were started in mid-September. The Fund for Improvement of Post Secondary Education grant has as its major purpose the establishment of a clearinghouse for apprenticeship related training materials. The present update is based upon a planning meetings which the Third Party Evaluator made with Burr Fancher on September 15th, with the Project Director at Lane Community College on September 23rd, with the formed Advisory Committee in Portland on October 15th, and in Albany with the Project Director, the Project Coordinator, and Ms. Karen Starr on October 21, 1986. Familiarization with the Project was the theme of the September 15 and 23 meetings; the Portland meeting provided Advisory Committee input toward the Project's direction. The topic for the Albany meeting centered on the clarification of the dimensions for the national computer search parameters which Karen Starr will be making for the directory listing phase of the work.

The following matters seem to apply to the Project's activities and progress to date:

1.) The Project was initiated according to the timelines specified in the grant proposal. Key staff members, including the Project Director, Project Coordinator, and the Third Pary Evaluator, were on-line at the beginning of the preliminary phase of the Project. Much of the basic and preliminary staff organization work was accomplished prior to the October 1st startup date.

2.) Evaluation benchmark questions were submitted to the Project Director on September 23rd and to the members of the Advisory Committee on October 15th. In all, a total of seventeen items were generated and approved by the Advisory Committee for the evaluation of the Project.

3.) Materials-acquisition letters were mailed to 143 individuals and organizations on October 17th to seek assistance in the identification of apprenticeship curriculum materials and to inform others of the activities of the Clearinghouse Project (see attached).

4.) The Advisory Committee for the Project met in Portland, Oregon on October 15, 1986. Two committee members, Cleveland Randle and Larry Warford, were not able to attend the meeting. The major recommendations which the Advisory Committee made to the Project Director and others included the following:

A.) Use-permission should be solicited from national data base systems, such as from ERIC and other curriculum and research dissemination systems, in order to access and reproduce related apprenticeship materials.

B.) An initial search for materials in national data files should encompass the years 1970 through 1986.

C.) All hardcopy materials which are products of the Project should be housed at Lane Community College. The matter of the location for the computer data base is uncertain at this time. Security and storage issues were discussed at the meeting.

D.) The question of file security should be studied in terms of the data implementation plan. SUNY has a system which seems to be very similar to the one which is suggested for the present project and should be carefully evaluated for purposes of document and file security in relation to the anticipated Apprenticeship Clearinghouse products.

E.) The San Mateo (California) data base serves as a good example for the organization of curriculum materials. This plan should be studied to determine if the Apprenticeship Project can utilize its structure.

F.) The initial computer field search for documents should be directed toward applied (useable) curriculum materials, instructional modules, curriculum guides, tapes, and films. Policy and position papers, implementation guides, and other supportive documents, although important, will not be given primary emphasis during this phase.

5.) The scope of work to be completed by the Project Coordinator has been submitted and accepted by the Project Director. Karen Starr, a computer data base acquisition specialist, has been added to the staff of the Project and will assist the Project Coordinator in the conduct of the national data base searches.

6.) At the October 21st meeting held at VIPS in Albany it was decided to seek out abstracts during the initial search as a first step. Abstracts will be limited to 250 words or less. The first search will consist of a rough inventory of available materials and will be held to less than 1000 citations; the second computer run will refine the listing. The initial search will include only ERIC in its dimensions. The results of the inventory will be made available to Advisory Committee members, who will assist in the process of determining which materials are most appropriate to the project's goals. First run output will be available to the project staff in early November.

7.) The 750 applied trade occupations which have been recognized as apprenticeship in character by the Bureau of Apprenticeship and Training (document dated 16 Sep 1985) have been fitted into thirteen (13) cluster areas by the Project Coordinator. These areas will later serve as a basis for organizing materials for the project.

8.) It has been recommended that commercial companies having in-house apprenticeship programs be contacted as the acquisition of materials phase of the project is initiated. At the Albany meeting it was decided to sample five (5) such companies from each of the national categories.

9.) As the apprenticeship project reaches its later phases, an ordering system for users should be built into the software acquisition procedure in order to enable the user to purchase a document directly from the source.

16 February 1987

To: Carl Horstrup, Project Director
cc: Burr Fancher

From: E. Wayne Courtney, Third Party Evaluator

Re: Evaluation Update #2

The following matters apply to the Apprenticeship Training Materials Clearinghouse Project which is being conducted at Lane Community College in Eugene (Oregon). This report includes activities which have been implemented since the initial update report dated 1 November 1986. The present report is based upon personal contacts with key Project staff members and on Third Party Evaluator presence at the following meetings:

Advisory Committee - Portland - 1 December
Staff meeting - U. of Oregon - 29 January
Meeting with Burr Fancher - Corvallis - 13 February

1.) The December Advisory Committee meeting, with six (6) members present, was a one-day session at the Holiday Inn in Portland. Advisory Committee members where asked to select ERIC printout references which they wished to have retained as listings in the clearinghouse system. Over one half of the references were deleted from the computerized printout materials as a result of this sorting. A further refinement of the listings is planned as an activity for the Advisory Committee members when they reconvene in either April or May, 1987. At the meeting, the Project Director reported that 158 materials information request letters had been mailed to U.S. and Canadian agencies and will add currency to the listings being planned for the clearinghouse (see attached Update Newsletter and Project Announcement). In addition, Eric Rice, the Eastern region staff representative for the Project, has been asked to contact other agencies in seeking related materials and references (see attached letter).

2.) The Project Director, Karen Starr, and the Third Party Evaluator met with Dr. Philip Piele (ERIC Clearinghouse Director at the University of Oregon) in January to verify copyright clearance rules as they apply to ERIC materials. For the most part, it was determined that annotations, abstracts, and materials from federally-funded grants all constitute public domain items which may be utilized without permission. Reproductions are not public domain and fiches must be purchased from ERIC or from central ERIC in order to be included in any new clearinghouse database. Anything which has been copyrighted is not public domain. Sources must be cited if the Project 'strips-off' any documents from ERIC. It was suggested that Ted Brandhorst of ERIC (Maryland) be contacted regarding the use of the ERIC Thesaurus as a control (indexing) tool for the new Clearinghouse of Apprenticeship Training Materials. Dr. Piele's thoughts on this topic were that this was but an informal process because it can be generated entirely through the public domain. Piele recommended the use of both CD-ROM and on-line database storage components for the planned clearinghouse system.

3.) The University of Oregon meeting between the Third Party Evaluator and the Project Director revealed a potential problem which may exist in obtaining the total cooperation of Bureau of Aprenticeship and Training (BAT) staff. A series of letters dated 26 October, 4 November, 25 November, and 12 December, 1986 suggests that BAT staff representatives in Washington, D.C. are reluctant to grant regional apprenticeship offices clearance to participate in the Project's necessary requests and functions as detailed in the Project proposal. In accord with anticipated problems relating to this matter, the Third Party Evaluator strongly recommends that both the Project Director and BAT staff in Washington clarify and define their respective roles in order that the clearinghouse concept for apprenticeship materials be kept on schedule with a minimum of political conflict. State Boards of Vocational Education seem eager to participate and contribute their energies on behalf of the Project.

4.) The continuation proposal for the Project has been formulated and is ready for submission. At present, the Project is on schedule according to the timelines which were set forth for the first year's phasing. However, the User's Guide must be written soon if the Project is to remain on its timeline. Critical to the writing of the User's Guide are decisions regarding hardware and software matters for the database. The League of Innovation is ready to field test the system during the summer of 1987 using nineteen (19) community colleges in the U.S. and in Canada. However, this field testing cannot be conducted unless the decisions concerning hardware and software are made soon, certainly before June, 1987. This item must be given the highest priority if the Project is to meet its scheduled timelines.

Pacific Crest Research and Services Corporation

19 February 1987

MEMORANDUM

TO: Carl Horstrup

FROM: Karen J. Starr Karen

RE: Considerations for the Apprenticeship Clearinghouse

Last fall, Burr asked that I recommend those fields which should be included in the records appearing in the apprenticeship database. A short report outlining and prioritizing those data elements is included with this memorandum. I was also asked to develop a search profile covering apprenticeship and run that search electronically in the ERIC database. You have that bibliography in hand. There are a number of ideas you might wish to consider at this point.

1. The ERIC bibliography you have is by no means a comprehensive review of the apprenticeship literature already indexed and searchable electronically.

   Recommendations:

   a. The completed literature review needs to be closely evaluated for the validity of the results as a reflection of the search strategy that was used. Did the search strategy pull exactly what was intended?

   b. The apprenticeship bibliography was restricted by a number of apprenticeship disciplines. Are these to be used as the "control population." Will the rest of the apprenticeship articles in ERIC that were not pulled be evaluated for their potential validity as a part of the database? Has an editorial policy been established regarding a profile to retrieve apprenticeship material. If so, has that policy been established with all its implications taken into consideration?

   c. A profile was developed and run against the vocational education literature in the ERIC database. Has that bibliography been closely evaluated for its validity? Has an editorial policy been developed regarding the amount and content of the vocational education literature to be included in the database?

2. The Clearinghouse needs to establish editorial guidelines for what will and will not be included in the database.

3. There are other databases which are commercially available that need to be searched for apprenticeship material to be included in the Clearinghouse database. Will these be considered?

4. It would be appropriate for the Clearinghouse to develop a search profile within its editorial guidelines to be run on a continuing update basis as established within these guidelines.

5. The Clearinghouse needs to look closely at the ERIC database as a model for developing its database.

6. It would be appropriate to look closely at the Thesaurus of ERIC Descriptors as the subject authority list for the database.

7. What other guidelines and authority lists will be used by the Clearinghouse? There are a number already used by ERIC. Will these be considered?

8. How will the Clearinghouse be established? Will it serve as a place to sort and catalog periodical articles and documents only? Will these functions include abstracting publications and assigning keywords within the editorial guidelines as developed by the Clearinghouse? Who will perform these functions?

9. Will the Clearinghouse act as a storage facility for apprenticeship material? How many copies will be maintained? How will these documents be housed? How will document delivery be handled?

10. Who will handle the functions of the Clearinghouse? Will these people include education specialists, information specialists, and/or computer specialists? Who will handle the indexing and abstracting? Who will handle quality control? Who will manage the process?

11. What type of customer support will be provided by the Clearinghouse?

12. Where will the database be mounted? Will it be locally, on a professional society mainframe computer, or with a commercial vendor?

13. Who will provide the technical support for the database? This includes both hardware, software, and quality control.

14. If it is mounted locally on a microcomputer or minicomputer, what about the following considerations:

    a. How many users will be supported at any one time? If there are more than two on a PC, what does that do to CPU response time? What impact does that have on customer service and hardware?

    b. How will charging be accounted for?

    c. When will the file be updated so as to not compete with users? At night?

    d. How many ports will be provided? When searching, not only is CPU time taken but so are ports. What kind of IO software will be used?

    e. Are there any small computers on the market that kind handle the demands of the database? Will 32 bit machines do the job?

15. Has a cost benefit analysis been made for the following:

    a. Mounting the database locally on a mainframe;

    b. Mounting the database locally on a micro/minicomputer;

    c. Mounting the database on a professional society's computer;

    d. Mounting the database on an information vendors's computer.

16. Has an RFQ been considered for subcontracting database entry processing and quality control to those companies that specialize in such services?

17. If such work is done in-house, what is the background of the individuals involved in the process?

18. Does the Clearinghouse intend to produce a printed index of the database? What about CD-ROM technology?

19. What kind of audit trails will be built into the Clearinghouse procedures?

By no means do these questions reflect all those considerations that are required of the Clearinghouse. The information producer plays a complex role in the information industry as part of the process flow from the original source of the information to the user of the information. The performance of that role is not an inexpensive proposition and can be handled in a number of ways to the best advantage of the producer. Your consideration of the above is appreciated.

cc: Fancher
Courtney ✓

RECORD FIELDS FOR THE APPRENTICESHIP DATABASE

Karen J. Starr

Pacific Crest Research & Services Corporation
Corvallis, Oregon

February 19, 1987

Prepared in compliance with the agreement of September 16, 1986, between Lane Community College and Pacific Crest Research & Services Corporation.

RECORD FIELDS FOR THE APPRENTICESHIP DATABASE

The development of an electronic database necessarily involves the merger of hardware, software, and the human element. This merger occurs within the greater arena of the information industry and its standards. How these dynamic and ever changing factors are dealt with directly influences the quality of the resulting database and its value as a marketable product.

The way a publication is represented in the database will be a reflection of the nature of the information, the editorial needs and policies of the Clearinghouse, and the user's need to retrieve the information. The technology currently being used by the information industry is based on coordinate indexing, commonly used in the 1950's and 1960's, and the record structure developed by the publishing industry during the early 1900's. From a user and retrieval point of view, this technology is anything but ideal. It is currently the industry standard, however, and consideration of prototype searching technology, like artifical intelligence, is not feasible from either a technological or financial perspective at this time. That does not preclude consideration of such technology at some future point.

Within the information industry's framework, the Clearinghouse must develop a number of editorial policies. One such policy includes the selection of fields which will form the records representing the information the database will index. A field is a piece of information about a publication. Examples include the author or authors, the title, or the source of publication. These fields usually have labels represented by mnemonics. One example is the author field with the mnemonic "AU."

Before attempting to recommend record fields for the apprenticeship database, a review of a number of commercially available databases was made. These included ERIC, Resources in Vocational Education, Resources in Computer Education, Ontario Education Resources Information Database, Vocational Education Curriculum Materials, and the School Practices Information File. These files are currently available on BRS Information Technologies in Latham, New York, and reflect the industry standards used in the management of the education literature.

The labels from all of the listed files were compared for uniqueness as well as consistency of use. Selection of labels was made on the basis of searching experience, patron need, and producer usage within the philosophical framework that suggests product familiarity has a direct influence on product marketability. Those labels which are the most valuable are described in "Required Data Elements." Often users have need for information which is useful for the identification of an article. These labels are listed in "Other Necessary Data Elements." Finally, there are other types of information which are useful from an information retrieval perspective, and are included in "Optional Data Elements." The use of these items will require an editorial policy decision on the part of the Clearinghouse taking into consideration hardware, software, and user needs.

REQUIRED DATA ELEMENTS

Accession Number (AN)

The accession number is a unique identification number which has been arbitrarily and sequentially assigned to each document as it is entered into the database. The accession number can be developed in a number of ways reflecting the intent and need of the producer.

Recommendations:

1. The number should begin with a prefix representing the Apprenticeship Clearinghouse followed by numbers representing the sequential addition of the record into the system. One example might be the first two numbers representing the year the citation first appeared with the next four numbers representing the abstract number within that year.

2. The apprenticeship database will draw a number of its records from the ERIC database. Documents in the ERIC database are assigned an accession number beginning with ED. Journal articles are assigned a number beginning with EJ.

    a. The ED number can be used to access ERIC document collections which are available in college and university libraries on a national basis. This same number can be used to order ERIC documents from their facility in Virginia. This number should be included in the accession field.

    b. If the accession field is directly searchable, the presence of the ED number will allow the requester to eliminate duplicate citations from a literature review which have already been obtained through a search of the ERIC database. The recommendation to make this option available is made with the consumer in mind.

3. Computerized databases are usually updated on a monthly basis. The accession number field should include an update code which represents the year and the month the record entered the database; i.e., 8701 stands for January 1987.

    a. From a searching point of view this code is useful. An example is the ability to limit the information retrieved in a search to a designated part of the file as part of a current awareness review of the literature.

b. The update code can also occur in a record as a separate field.

Comment: The recommendation to include ERIC document numbers in the accession field is made with the consumer in mind. While the producer will potentially loose royalty charges on those citations, there are several scenarios which will occur. People interested in apprenticeship material will use the producer's database because the database will include a strong collection of material not available anywhere else. The consumer population consisting primarily of librarians and educators coming from a generalist's point of view will be the group most likely to eliminate the duplicate ERIC citations. The producer has other very important markets. These include apprenticeship specialists, vocational education specialists, and the private sector such as Freightliner. These individuals will very likely opt to search only the apprenticeship database because it will satisfy their specialized needs. For professional practitioners, comprehensive literature reviews are unnecessary. They just want what fulfills their immediate need. This group will probably not eliminate the ERIC duplicates.

Author (AU)

The author data field most often includes what are known as personal authors and editors. Corporate authorship is represented elsewhere in a record. Education oriented files very often include up to two authors only. When an article has more than two authors, the rest are dropped and the words "and others" fill out the field.

Recommendations:

1. Names should be entered as they appear on the original source document with the last name first, followed by the first name or initial, and the middlename or initial.
2. An editorial decision needs to be made regarding the number of authors included in the author field which takes into account the information seeking needs of the database user. The ERIC model is certainly useful. Input from the Advisory Committee would also be appropriate along with a review of those journals considered standards in the education field. From an information retrieval point of view it is useful to have more than two authors listed in a multi-authored article.

Author Affiliation (IN)

This field contains the name of the institution with which the author was affiliated at the time the work was published. It is particularly useful for users who have need to identify the "gray, or invisible, college" of specialists in their area of research. More than one institution may appear in this paragraph. It can also be used to include the corporate author of a work; i.e., a work produced by a corporate entity rather than an individual or group of individuals.

Title (TI)

This data field includes the title of the document. If and when an editorial decision is made to include non-English publications, this field can also include the title as it is written in English. Such "fabricated titles" are enclosed in brackets to set them off from the real titles.

Source (SO)

The source field contains the journal title, volume and issue number, pagination and publication date for all citations to journal articles. This field does not show in citations which are of a document nature.

Recommendation:

1. An editorial decision needs to be made regarding how the journal title will appear in this field. A number of databases abbreviate their titles. Such an approach is confusing to users who expect titles to be spelled out as they appear on the cover of the journal. With the consumer in mind, it would be more appropriate to follow the ERIC model where the titles are spelled out in full.

Availability (AV)

This field contains information on where the cited document may be obtained; i.e., commercial or other publishers, ERIC, or the Apprenticeship Clearinghouse. It is the field used for all material not published in a journal. Journal articles show such information in the source field. All addresses in the availablity field need to be spelled out in full. States and zip codes need to be standardized.

Descriptors (DE)

Descriptors are controlled vocabulary terms or keywords used to represent the subject orientation of the article or document. They are extremely useful from a searching point of view.

Recommendations:

1. The Thesaurus of ERIC Descriptors should be used as the authority list for all descriptors assigned to articles entered into the apprenticeship database.
2. An editorial policy decision needs to be made about the number of descriptors assigned to each article. The ERIC model should be looked at closely as a standard.

3. An editorial policy decision needs to be made regarding whether it would be to the user's advantage to have the descriptor field broken into major and minor descriptor designations. This can be a useful retrieval tool as a means of establishing subject specificity in reviews which retrieve large amounts of information. A user can easily request those items in a search that have a designated topic as the major subject orientation.

Identifiers (ID)

Identifiers are natural language terms used to describe specific concepts or subjects discussed in a document for which no ERIC thesaurus terms are available. Such terms might represent concepts unique to the apprenticeship field which are not commonly used elsewhere in education. There is an identifier authority list used by ERIC that can be helpful.

Year of Publication (YR)

This is a four digit year of publication of the document or article. Normally in the case of articles, this information shows up in the source field. It is not included in the availability field which shows source of publication for documents. For consistency purposes it is appropriate to include the year of publication in a separate field across the entire database. The field is used for searching purposes when the user wants to limit the resulting bibliography to a certain time period. Because we are moving out of the 1900's into the 2000's, it will be appropriate to include all four digits of the year to avoid confusion in the future between centuries.

Abstract (AB)

The field is a 50-200 word abstract of the article or document. This abstract can be generated by the Apprenticeship Clearinghouse, taken from database literature reviews with copyright permission, or taken from the author abstract which is often included with a journal article. The field provides information about the article or document which tells the user whether it is going to be useful and worth obtaining a copy of the original article. It is also useful for searching purposes since citations can be retrieved based on the occurrences of requested terms within the abstract field. When a topic is new this is often the only way material can be retrieved, since a word might appear in the abstract and not in the title or the keywords.

OTHER NECESSARY DATA ELEMENTS

Pagination (PG)

Pagination indicates the number of pages contained in the original document or journal article. This information can be useful when a user is interested in ordering the original document from either the Apprenticeship Clearinghouse or ERIC.

Geographic Source (GS)

This field represents the country of origin or place of publication. Within the United States, the information extends to the state level. In Canada, it extends to the provincial level. In the case of all other countries, no further divisions need be made.

Recommendation:

1. Various databases handle geographic locations in various ways. For example, some spell the names out and others use two letter symbols. An editorial decision needs to be made with the ERIC model in mind.

Number (NO)

Often documents are published as a result of contract work that will be useful additions to the database. These publications will include a grant, contract, report, or project number. Such numbers often show up in citations to the document. Including such a data field would aid searchers who often have very little to go on when trying to verify a document's existence.

Sponsoring Agency (SN)

This is the name of the agency which sponsored the research or report. It is particularly useful when searching for reports when it is an unknown whether the report was issued under the primary investigator's name or the agency's name.

Language of Publication (LG)

An editorial decision needs to be made regarding the addition of non-English publications, particularly if Canadian material is added. This is also important if U.S. produced material is included that is aimed at minority groups such as the Hispanics. From a searching point of view, it is valuable to include the field for those individuals who want to see only English language materials. Even if the majority of the file is composed of English, an accommodation to other languages needs to be made. It is easier to include the field and annotate the records from the beginning than to go back in the future and reload the file.

Governmental Status (GV)

This data element indicates whether a document is a publication of a governmental body. It should reflect whether the body is federal, state, local, or international.

OPTIONAL DATA ELEMENTS

Price Codes (PR)

Codes can be included in this field to reflect the current price of documents available from the Apprenticeship Clearinghouse.

Descriptive Note (NT)

The note field can be used to include information that will augment the description of the document as presented in the other fields. Such information might include a series notation, thesis notes, relationship to other documents, or conference or convention presentation dates.

Publication Type (PT)

This includes the format of the publication and the field may include as many as three codes. These codes are used in the ERIC database and are listed in the Thesaurus of ERIC Descriptors.

Target Population (TP)

There are a variety of special population groups which can be identified. The records can be tagged with these labels as appropriate.

Educational Level (EL)

Educational levels are assigned only if they are designated specifically in a report. They are assigned primarily to curriculum materials. In other materials this information will be included in the descriptor field with such terms as elementary schools or secondary schools.

Mode of Instruction (MI)

The information in this field includes the type of instruction and variety of instructional techniques offered by a particular curriculum.

Instructional Information (II)

This contains information regarding the objectives to be obtained by a student through utilization of a particular curriculum. Prerequisite knowledge and skill are also detailed in the field.

Material Type (MT)

Types of educational materials are represented typically as evaluation measures, handbooks, statistical tables, resource documents and guidelines.

Material Status (MS)

The field indicates the status of curriculum materials. "In progress" means in development or ongoing research. Available curriculum documents are tagged as either "current" or "superseded."

Special Features/Components (SC)

These would include such items as bibliographies, appendices, tables, charts, and literature reviews. Such information can be useful when, for example, a researcher would be interested in a review article.

Tests/Instruments (TE)

Names of tests which are included in the document appear here as well as the tests or instruments used in research but not included in the document.

Intended User (IU)

This field includes the general category of user for whom the material was intended.

Nonprint Media (NM)

The type of nonprint material and a physical description would appear in this field.

Copyright Information (CI)

This includes information concerning any copyright restrictions on the use of curriculum materials. Serious consideration of this field should be made by the Clearinghouse.

Comment: Those data elements listed in this section are nice to have from a searching perspective, but are what one might consider "icing on the cake." A number of appendices have been attached to this report which illustrate how other databases have used these labels.

CONCLUSIONS

It is important to remember that a record can be created within a database framework which includes any number of fields representing all types of information. The above fields have been recommended in a heirarchy which is representative of their value from a user's point of view for purposes of retrieval within the education discipline. The Clearinghouse needs to establish a number of editorial policies for the development of its database. These need to be made within the organizational structure the Clearinghouse decides to adopt and will be influenced by the hardware the database will be housed on and the software used to retrieve information from that database, and the user community.

Appendix A

Database AidPages

brs INFORMATION TECHNOLOGIES

AIDPAGE
ERIC

Educational Resources Information Center

BRS Label:
ERIC

Scope:
ERIC contains over 576,000 citations covering research findings, project and technical reports, speeches, unpublished manuscripts, books, and journal articles in the field of education.

Search Aids:
- *Thesaurus of ERIC Descriptors.*
- *ERIC Processing Manual.*
- *ERIC Contract/Grant Number Index.* (Annual).
- *ERIC Report/Project Number Index* (Cumulative).
- *ERIC Title Index 1966–1976* (Annual cumulations with quarterly supplements, 1977 – Date).
- *Institutional Source Directory* (Annual).

BIBL Paragraphs:
AN, AU, TI, SO, SN, IS, YR

Producer:
ERIC Processing and Reference Facility
4833 Rugby Ave., Suite 301
Bethesda, MD 20814-3073

Contact:
Ted Brandhorst
Telephone: 301-656-9723
703-620-3660
(for search assistance)

Document Delivery:
Most RIE documents are available on microfiche or in paper copy from EDRS or on microfilm from Computer Microfilm Corporation:

EDRS
P.O. Box 190
Arlington, VA 22210

Computer Microfilm Corporation
3900 Wheeler Ave.
Alexandria, VA 22304-5110
1-800-227-3742

Years of Coverage:
1966 to date

Total Size:
Over 576,000 citations;
RIE: 253,102 citations,
CIJE: 323,024 citations.

Updates:
Approximately 3,500 citations added monthly.

Print Counterparts:
Current Index to Journals in Education (CIJE).
Resources in Education (RIE).

Record Structure

Label	Paragraph	Function	Example
AN	ERIC Accession Number	..s ..l	ej266520.an. ..l/1 an > ej266520
AU	Author/s	..s	jones-t$.au.
IN	Name of institution where work was performed (RIE only)	..s	education adj products adj information adj exchange.in. qpx23895.in.
TI	Title	..s	bilingual adj immersion.ti.
SO	Journal title, volume, issue, number, date, pages.	..s	journal adj child adj language with jun82.so.
*LG	Language	..s	fr.lg.
*GS	Geographic source (RIE only)	..s	ontario.gs.
SN	Sponsoring agency name and code (RIE only)	..s	cooperative adj state adj research adj service.sn. edn0001.sn.
PA	Program area code (RIE only)	..s	'08'.pa.
IS	RIE or CIJE issue number	..s	rienov81.is.
NO	Numbers: grant, contract, report, project (RIE only)	..s	dhhs-adm-80-1037.no.
CH	Clearinghouse code	..s	ps.ch.
*GV	Governmental status (RIE only)	..s	state.gv.
PR	EDRS price codes (RIE only) Not available from EDRS = PR–NA	..s	pr–na.pr.
PT	Publication type code	..s	'150'.pt.
AV	Availability statement	..s	umi.av.
LV	Level of availability (RIE only)	..s	'2'.lv.
NT	Descriptive note (RIE only)	..s	kenya.nt.
YR	Year of publication or generated entry date	..s ..l	81.yr. ..l/1 yr > 81
MJ	Major subject descriptors	..s	liberal-arts.mj. liberal-arts.de.
MN	Minor subject descriptors	..s	cultural-background.mn. cultural-background.de.
ID	Identifiers	..s	cats.id.
AB	Abstract	..s	folk adj tale$1 with spanish.ab.

* Data elements added in 1979.

Sample BRS/ERIC Citations

CIJE Citation

AN EJ323029.
AU Perkins, D. N.
TI The Fingertip Effect: How Information-Processing Technology Shapes Thinking.
SO Educational Researcher; v14 n7 p11-17 Aug-Sep 1985. 85.
LG EN..
IS CIJDEC85.
CH UD511746.
PT 080; 120.
AV UMI.
YR 85.
MJ Cognitive-Processes. Information-Processing. Technological-Advancement.
MN Cognitive-Style. Data-Processing. Elementary-Secondary-Education. Learning-Theories. Technological-Literacy. Word-Processing.
AB Typical contacts with information-processing technology (IPT) do not significantly reshape thought. Although some suggest that IPT will have a narrowing, dehumanizing influence, the diversification of ITP now underway will allow for more styles of involvement. Because of this diversification, thinking may change as it did in response to literacy and print. (KH).

RIE Document

AN ED260172.
AU Warren, Paul; Johnson, Hadley.
IN California State Legislative Analyst's Office, Sacramento. BBB20286.
TI Job Search, Training, and Work Experience: The Lessons for California from Eight Evaluations of the Work Incentive Program.
LG EN..
GS U. S. California..
IS RIEDEC85.
CH UD024397.
GV State.
PR EDRS Price — MF01/PC03 Plus Postage.
PT 142.
LV 1.
NT 70p.
YR 85.
MJ Program-Effectiveness. Welfare-Recipients.
MN Cost-Effectiveness. Employment-Programs. Job-Training. Program-Costs. State-Federal-Aid. State-Legislation. State-Programs. Unemployment.
ID IDENTIFIERS: Aid to Families with Dependent Children. California. Service Delivery Areas. Target Populations. Work Incentive Program.
AB As part of a review of California's strategy for helping recipients of Aid to Families with Dependent Children (AFDC) find jobs through the Work Incentive Program (WIN), eight demonstration programs were analyzed. There were four major findings. First, the Department of Social Services (DSS), which targets AFDC recipients with recent job experience for WIN employment and training services, should instead target AFDC recipients who lack recent work experience. To that end, legislation is needed to redesign State employment and training programs. Furthermore, increases in participant earnings, not placement rates, should be made the primary measure of the success of employment programs. Second, the most cost-effective services are job search and skill training services. Third, State and local coordination of WIN and Job Training Partnership Act services is essential if their impact on increasing participant earnings and reducing AFDC is to be maximized. Local WIN managers should be given responsibility for determining the types of services provided locally, and legislation should be created that requires DSS to develop guidelines and procedures for supplying local managers with the information needed to determine the types of services appropriate to different economic conditions. And fourth, the two primary goals of the WIN program are to reduce welfare dependency by increasing the earning power of AFDC recipients and to reduce AFDC grant expenditures. To address both goals, a two-tiered strategy is required. (KH).

BRS • 1200 RT 7 • LATHAM, NEW YORK 12110 • 518-783-1161 • TWX 710 444 4965

The BRS AidPage for Exceptional Child Education Resources

BRS Label:
ECER

Scope:
English language print and non-print materials dealing with the education of children or youth who are gifted, talented or handicapped. Included is coverage of resources geared toward hearing impaired, visually handicapped, socially maladjusted, emotionally disturbed, learning disabled or multiply handicapped.

BIBL:
AN, AU, TI, SO, IN, YR, AV

Producer:
The Council for Exceptional Children
1920 Association Drive
Reston, VA 22091

Contact:
Lynn Smarte
703-620-3660

Document Delivery:
Most ERIC documents available from:
ERIC Document Reproduction Service
P.O. Box 190
Arlington, VA 22210

Search Aid:
Thesaurus of ERIC Descriptors

Years of Coverage:
1966 to present

Total Size:
50,000 records

Updates:
Monthly

Print Counterpart:
Exceptional Child Education Resources, published quarterly.

Royalties:
$10 per connect hour;
$.05 per offline citation.

RECORD STRUCTURE KEY

Label	Paragraph	Function	Example
AN	Accession Number	..s	ec131442
		..l	..l/1 ec > 12001
	Update Code	..s	8301.up.
AU	Author/s	..s	davis-w$.au.
TI	Title	..s	gifted with music.ti.
SO	Source	..s	educational adj researcher.so.
IN	Institutional Affiliation	..s	kansas adj univ$.in.
SN	Sponsoring Agency	..s	national adj diffusion adj network.sn.
AV	Availability	..s	edrs.av.
PT	Publication Type	..s	052.pt.
NT	Notes	..s	related adj documents.nt.

Label	Paragraph	Function	Example
YR	Year of Publication	..s	81.yr.
		..l	..l/1 yr > 80
MJ	Major Descriptors	..s	academically-gifted.mj.
MN	Minor Descriptors	..s	speech.mn.
ID	Identifiers	..s	dysphasia.id.
AB	Abstract	..s	peer with pressure.ab.
PG	Pagination	display	
LG	Language of Publication	..s	en.lg.
GS	Geographic Source	..s	iowa.gs.
GV	Governmental Status	..s	state.gv.

Sample BRS/ECER Citations

AN EC132539. EDSEPRIE. 8109.
AU GOLDBERG-DANIEL-C AND OTHERS.
IN NEW JERSEY STATE DEVELOPMENTAL DISABILITIES COUNCIL, TRENTON.
TI A STUDY OF EARLY INTERVENTION PROGRAMS IN NEW JERSEY.
SN OFFICE OF HUMAN DEVELOPMENT (DHEW), WASHINGTON, D.C. OFFICE OF DEVELOPMENTAL DISABILITIES.
AV EDRS: MF; HC.
YR 80.
MJ DISABILITIES. INFANTS. INTERVENTION.
MN PROGRAM-DESCRIPTIONS. PARENT-SCHOOL-RELATIONSHIP. PARENT-ATTITUDES. STATE-SURVEYS. STATE-PROGRAMS.
ID NEW JERSEY.
AB THE STATUS OF EARLY INTERVENTION PROGRAMS FOR HANDICAPPED YOUNG CHILDREN IN NEW JERSEY IS EXAMINED THROUGH ANALYSIS OF RESULTS FROM A PARENT QUESTIONNAIRE, PROGRAM ADMINISTRATOR SURVEY, FUNCTIONAL ASSESSMENT FORMS ON CHILDREN, GROUP INTERVIEWS WITH STAFF AND PARENTS, AND PHONE INTERVIEWS WITH PROGRAM ADMINISTRATORS. AMONG RESULTS REPORTED ARE THAT THE PROGRAMS SERVE A RELATIVELY WIDE CROSS SECTION OF THE GENERAL POPULATION; SOCIOECONOMIC STATUS DOES NOT APPEAR TO BE VERY INFLUENTIAL IN A PARENT'S SELECTION OR A CHILD'S REFERRAL TO A PARTICULAR PROGRAM TYPE; IT APPEARS THAT A NUMBER OF CHILDREN NEEDING SERVICES ARE NOT ENROLLED IN EARLY INTERVENTION; A NUMBER OF PROCEDURES ARE USED TO ENSURE PROGRAM QUALITY, BUT FEW STANDARDIZED MONITORING AND EVALUATION PROGRAMS EXIST; OVERALL, PARENTS AND STAFF SHARE SIMILAR VIEWS OF A CHILD'S FUNCTIONING, PARTICULARLY IN GROSS MOTOR SKILLS; AND PARENTS' PREDICTIONS ABOUT THE CHILD'S FUNCTIONAL CAPABILITIES AT THE AGE OF 3 ARE SIMILAR TO THE STAFF'S. (CL).
PG 112P.
LG EN.
GS U.S. NEW JERSEY.
GV STATE.

AN EC143039. 8211.
AU STANLEY-JULIAN-C. BENBOW-CAMILLA-PERSSON.
TI EDUCATING MATHEMATICALLY PRECOCIOUS YOUTHS: TWELVE POLICY RECOMMENDATIONS.
SO EDUCATIONAL RESEARCHER; V11 N5 P4-9 MAY 1982.
PT 080; 120.
YR 82.
MJ ACADEMICALLY-GIFTED. TALENT-IDENTIFICATION. COLLEGE-ADMISSION.
MN MATHEMATICS. LONGITUDINAL-STUDIES. EDUCATIONAL-POLICY. AGE.
ID STUDY OF MATHEMATICALLY PRECOCIOUS YOUTH.
AB TWELVE POLICY RECOMMENDATIONS DRAWN FROM LONGITUDINAL FOLLOWUPS OF THE STUDY OF MATHEMATICALLY PRECOCIOUS YOUTH ARE PRESENTED, INCLUDING THAT STUDENTS CAPABLE OF ACHIEVING AT A HIGH LEVEL SHOULD BE IDENTIFIED EARLY NATIONWIDE; STUDENTS SHOULD BE ALLOWED TO TAKE MATHEMATICS COURSES APPROPRIATE TO THEIR ABILITY AND ACHIEVEMENT LEVELS, REGARDLESS OF AGE; AGE RESTRICTIONS ON ALL THE NATIONAL SCIENCE FOUNDATION SUMMER INSTITUTES SHOULD BE LOWERED; AND THAT SOME ACADEMICALLY TALENTED STUDENTS SHOULD ENTER COLLEGE FULL TIME WHILE STILL YOUNGER THAN THE TYPICAL AGE, WITH OR WITHOUT HAVING EARNED A HIGH SCHOOL DIPLOMA. (CL).
PG 6P.
LG EN.

AN EC140353. EDAPRRIE. 8202.
AU MATTSON-BEVERLY AND OTHERS.
TI THE SPINA BIFIDA CHILD IN THE CLASSROOM.
AV EDRS: MF; HC.
PT 052; 150.
NT PAPER PRESENTED AT THE ANNUAL INTERNATIONAL CONVENTION OF THE COUNCIL FOR EXCEPTIONAL CHILDREN (59TH, NEW YORK, NY, APRIL 12-17, 1981, SESSION T-64). SOME PAGES HAVE FAINT PRINT.
YR 81.
MJ LEARNING. SENSORY-INTEGRATION. PERCEPTUAL-DEVELOPMENT. READING. MOTOR-DEVELOPMENT.
MN PHYSICAL-DISABILITIES. INTELLIGENCE. VISUAL-PERCEPTION.
ID SPINA BIFIDA.
AB LEARNING CHARACTERISTICS OF CHILDREN WITH SPINA BIFIDA (LESIONS ON THE SPINAL CORD) ARE REVIEWED IN THE TEXT OF A PRESENTATION WITH SLIDES, AND THE EFFECTS OF SUCH FACTORS AS HOSPITALIZATION EXPERIENCES AND THE PRESENCE OF HYDROCEPHALUS ARE CONSIDERED. CHARACTERISTICS RELATED TO INTELLIGENCE, SENSORY INTEGRATION, TACTILE RESPONSIVENESS, TACTILE DEFENSIVENESS, MOTOR PLANNING, POSTURAL INSECURITY, VISUAL PERCEPTION PROBLEMS, HANDWRITING PROBLEMS, DISTRACTIBILITY, LANGUAGE STYLE, AND READING ARE DISCUSSED; AND EXAMPLES OF STUDENTS WITH THOSE CHARACTERISTICS ÀRE GIVEN. SUGGESTIONS FOR REMEDIATION ARE OFFERED. ALSO INCLUDED IN THE PAPER ARE GUIDELINES REGARDING ADAPTATIONS FOR PHYSICAL PROBLEMS, AND SEVERAL BIBLIOGRAPHIES ON THE TOPIC. (CL).
PG 44P.
LG EN.
GS U.S. DISTRICT OF COLUMBIA.

AN EC142804. 8209.
TI PEARLS IN THE ALPHABET SOUP.
AV BEACON FILMS, P.O. BOX 575, NORWOOD, MA 02062 ($650.00; RENTAL $65.00 PLUS POSTAGE).
PT 100; 141.
NT 28MIN/COLOR/16MM.
YR 81.
MJ GIFTED. MODELS. EDUCATIONAL-METHODS.
MN ELEMENTARY-SECONDARY-EDUCATION. SPECIAL-EDUCATION. FILMS. DELIVERY-SYSTEMS.
AB THE FILM PRESENTS A VARIETY OF PROGRAM MODELS WHICH CAN BE ADAPTED TO THE EDUCATIONAL NEEDS OF GIFTED STUDENTS AT THE PRIMARY AND SECONDARY LEVELS. (SW).
PG N/A.
LG EN.

The BRS AidPage
for
Resources in Computer Education

BRS Label:
RICE

Scope:
Information concerning the state of the art in school computer applications. Includes data on software producers and packages.

BIBL Paragraphs:
AN, TI, PD, CI, DE, ID

Producer:
Northwest Regional
Educational Laboratory
300 SW Sixth Ave.
Portland, OR 97204

Contact:
Barbara Rozell
Telephone: 503-248-6800,
Ext. 551

Search Aids:
Thesaurus of ERIC Descriptors

Years of Coverage:
1979 to date.

Total Size:
Will contain approximately 2,000 citations by 1983.

Updates:
Bimonthly with 200–300 records per update.

Royalties:
None at this time.

RECORD STRUCTURE KEY

Label	Paragraph	Function	Example
AN	Accession Number	..s	000635.an.
UP	Update Code	..s	up8212 8212.up.
		@	@up > 8212
		..l	..l/1 up > 8210
RT	Resource Type	..s	producer.rt.
TI	Title	..s	introduction and applesoft.ti.
PD	Organization Name	..s	southwest and edpsych.pd.
YR	Year of Publication	..s	yr82 82.yr.
		@	@yr > 80
CI	Contact Information	..s	apple with dealer.ci. teri adj leonard.ci.
HT	Hardware Type	..s	trs adj 80.ht.
SR	System Requirements	..s	dual adj disk adj drive.sr. 32k.sr.
DE	Descriptors	..s	fine-arts.de.
ID	Identifiers	..s	authoring-systems.id.
GL	Grade Level	..s	'3'.gl.
MI	Mode of Instruction	..s	simulation.mi.
II	Instructional Information	display	n/a
AB	Abstract	..s	text adj edit$.ab.
EV	Evaluation	..s	journal adj courseware.ev.
ES	Evaluation Summary	..s	program adj reliability adj sa.es.
ST	State	..s	new adj york.st.
TC	Textbook Correlation	..s	chemistry with computer.tc.

Sample BRS/RICE Citations

Producer Citation

AN ACCESSION NUMBER: 000001. 8206.
RT RESOURCE TYPE: PRODUCER.
PD ORGANIZATION: ADVANCED TECHNOLOGY APPLICATIONS.
CI CONTACT INFORMATION ADDRESS: 4296 TAMBOR COURT, SAN DIEGO, CA 92124.
PHONE NUMBER: 714/569-2693.
CONTACT PERSON: DR. LAWRENCE L. ATHERTON PRESIDENT.
HT HARDWARE TYPE: TRS-80 I, TRS-80 III, EXIDY.
DE DESCRIPTORS: TESTING, ADMINISTRATION, COMPUTER-MANAGED-INSTRUCTION.
ST STATE: CALIFORNIA.

Software Package Citation

AN ACCESSION NUMBER: 000443. 8206.
RT RESOURCE TYPE: SOFTWARE PACKAGE.
TI TITLE: MATH SEQUENCES.
PD ORGANIZATION: MILLIKEN PUBLISHING CO.
YR YEAR: 80.
CI CONTACT INFORMATION ADDRESS: 1100 RESEARCH BLVD., ST. LOUIS, MO 63132.
PHONE NUMBER: 314/991-4220.
CONTACT PERSON: BODIE MARX, VICE PRES.
COST: APPLE II - 12 DISKETTES $450, WITH 12 BACKUP DISKETTES - $675; PET AND TRS-80 - 12 DISKETTES $200.
HT HARDWARE TYPE: APPLE II, TRS-80 III, PET, ATARI 800, TI 99/4.
SR SYSTEM REQUIREMENTS HARDWARE: 48K, SINGLE DISK DRIVE, B/W OR COLOR
SOFTWARE: APPLESOFT ROM, DOS 3.2/3.3.
MEDIUM OF TRANSFER: 5 1/4 IN. DISK.
DE DESCRIPTORS: INSTRUCTION, MATHEMATICS, ARITHMETIC, BASIC-SKILLS, COMPUTER-MANAGED-INSTRUCTION, ELEMENTARY-EDUCATION, MIDDLE-SCHOOLS, INTERMEDIATE-GRADES-ADMINISTRATION, STUDENT-RECORDS.
ID IDENTIFIERS: CMI.
GL GRADE LEVEL: 1, 2, 3, 4, 5, 6, 7, 8.
MI MODE OF INSTRUCTION: STANDARD INSTRUCTION, REMEDIATION, ENRICHMENT
INSTRUCTIONAL TECHNIQUES: DRILL AND PRACTICE, PROBLEM SOLVING, LEARNING MANAGEMENT.
II INSTRUCTIONAL OBJECTIVES: PRACTICE IN STANDARD ELEMENTARY MATH.
INSTRUCTIONAL PREREQUISITES: ASSUME MATH CONCEPTS HAVE BEEN TAUGHT.
AB ABSTRACT: CONSISTS OF 12 DISKETTES IN A 3-RING BINDER, A TEACHER'S GUIDE, DUPLICATING MASTERS FOR STUDENT RECORD FORMS AND AN INSTRUCTION CARD. OPTIONAL AUTOMATED INSTRUCTIONAL MANAGEMENT SYSTEM IS INCLUDED. PROVIDES DRILL AND PRACTICE IN STANDARD ELEMENTARY MATH TOPICS INCLUDING NUMBER READINESS, BASIC OPERATIONS, LAWS OF ARITHMETIC, FRACTIONS, DECIMALS, PERCENT, EQUATIONS AND MEASUREMENT FORMULAS.
EV EVALUATION MAJOR STRENGTHS: SYSTEM IS EASY FOR STUDENTS AND TEACHERS TO USE. FORMATTING AND PRESENTATION OF INSTRUCTIONAL MATERIAL IS APPROPRIATE FOR SKILL LEVELS TAUGHT. STUDENT PROGRESS IS GOVERNED BY MASTERY AND AUTOMATICALLY ADJUSTED. INCLUSION OF AN OPTIONAL AUTOMATED INSTRUCTIONAL MANAGEMENT SYSTEM IS AN ASSET FOR TEACHERS.
MAJOR WEAKNESSES: STUDENTS MAY HAVE DIFFICULTY STARTING A SESSION BECAUSE HABITUAL USE OF RETURN KEY BETWEEN RESPONSE TO NAME, CLASS AND LEVEL RESULTS IN RETURN TO THE BEGINNING OF THE PROGRAM. MANAGEMENT SYSTEM LACKS INSTRUCTION AND EXAMPLES FOR EASY CLASSROOM IMPLEMENTATION.
SITE AND DATE: EVALUATION COMPLETED FALL, 1981.
ES EVALUATION SUMMARY:
KEY: SA = STRONGLY AGREE; A = AGREE;
D = DISAGREE; SD = STRONGLY DISAGREE;
NA = NOT APPLICABLE.
SUMMARY OF RESULTS: CONTENT ACCURACY (SA); EDUCATIONAL VALUE (SA); LACKS CULTURAL STEREOTYPING (SA); OBJECTIVES WELL-DEFINED (A);ACCOMPLISHES STATED OBJECTIVES (A); CLARITY OF CONTENT PRESENTATION (SA); APPROPRIATE DIFFICULTY LEVEL (SA); APPROPRIATE GRAPHICS/SOUND/COLOR (SA); APPROPRIATE MOTIVATIONAL LEVEL (SA); CHALLENGES STUDENT CREATIVITY (D); FEEDBACK EFFECTIVELY EMPLOYED (A); STUDENT CONTROLS PRESENTATION OF FORMAT (A); APPROPRIATE INTEGRATION WITH PRIOR LEARNING (A); CONTENT CAN BE GENERALIZED (A); PROGRAM COMPREHENSIVENESS (A); ADEQUATE PACKAGING (SA); EFFECTIVE INFORMATION DISPLAYS (A); CLARITY OF INSTRUCTIONS (A); TEACHER FACILITY WITH PROGRAM (A); APPROPRIATE USE OF COMPUTER TECHNOLOGY (A); PROGRAM RELIABILITY (SA)
RECOMMENDATION: EVALUATORS INDICATE THEY WOULD USE OR RECOMMEND USE OF PACKAGE WITH LITTLE OR NO CHANGE. REFER TO EVALUATOR'S GUIDE ED206330 FOR INTERPRETATION OF EVALUATIVE CRITERIA.

BEST COPY AVAILABLE

BRS INFORMATION TECHNOLOGIES™

AIDPAGE RIVE

Resources in Vocational Education

BRS Label:
RIVE

Scope:
Ongoing and recently completed research, exemplary and innovative curriculum development projects in vocational education, and their resulting products and reports. Includes proposal abstracts and documents.

Producer:
The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Contact:
Carl Oldsen (technical information)
Judy Wagner (search information)
800–848-4815
614–486-3655 (in Ohio)

Years of Coverage:
1978 to date

Total Size:
Approximately 8000 records

Updates:
Quarterly (approximately 500 records per update)

Search Aids:
Thesaurus of ERIC Descriptors, 9th ed.

Royalties:
None

RECORD STRUCTURE KEY

Label	Paragraph	Function	Example
AN	Accession Number	s	005712.an.
FS	Funding Source	s	131.fs.
FY	Fiscal Year	@	@fy > 1980
ST	State	s	california.st.
CD	Congressional District	s	'17'.cd.
PI	Proposal Identification Number	s	ct8113209.pi.
NO	Contract, Grant or Project Number	s	gr-3975.no.
TI	Title	s	adult with career with vocational.ti.
PD	Project Director	s	smith adj pamela.pd.
ON	Organization Name	s	virginia adj commonwealth adj university.on.
*OT	Organization Type	display	n/a
SA	Sponsoring Agency	s	pennsylvania adj state adj dept adj education.sa.

Label	Paragraph	Function	Example
PO	Project Officer	s	smith.po.
DT	Project Dates (Start–End)	s	start adj date adj '01' adj jul adj '81'.dt.
TD	Total Project Dollars	@	@td < 25000
FF	Fiscal Year Funding	@	@ff82 > 10000
DN	Descriptive Note	s	department adj labor.dn.
*TP	Target Population	display	n/a
*EL	Educational Level	display	n/a
*PR	Products	display	n/a
MJ	Major Descriptors	s	employment-opportunities.mj.
MN	Minor Descriptors	s	task-analysis.mn.
ID	Identifiers	s	proposal.id.
*PP	Program Priorities	display	n/a
AB	Abstract	s	carpenter with performance adj guide$1.ab.

*These paragraphs were designed by the producer for internal analysis purposes only. Please use the major and minor descriptor fields for searching specific topic areas.

4/83
227

AN 000481. 8203.
FS 133.
FY 1980.
ST GEORGIA.
PI GA8013309.
NO CN: 98438.
TI SELF-PACED, COMPETENCY-BASED, ARTICULATED CURRICULUM FOR THE SECONDARY ELECTRONICS CLUSTER AND POSTSECONDARY RADIO AND TELEVISION SERVICES PROGRAM.
PD SEYMOUR, JAMES.
ON J&M LIMITED, EDUCATIONAL CONSULTANTS PO BOX 296, COLBERT, GA 30628.
OT BUSINESS/INDUSTRY/LABOR.
SA GEORGIA STATE DEPT. OF EDUCATION, ATLANTA.
DT START DATE 15 FEB 80; END DATE 15 APR 81.
FF $75,000.
TP STUDENT.
EL HIGH SCHOOL AND POSTSECONDARY (10-14).
PR PRINTED INSTRUCTIONAL MATERIALS.
MJ ARTICULATION-EDUCATION. COMPETENCY-BASED-EDUCATION. INSTRUCTIONAL-MATERIALS. ELECTRONICS. TELEVISION-RADIO-REPAIRERS.
MN SECONDARY-EDUCATION. POSTSECONDARY-EDUCATION.
ID STATE. PROPOSAL.
PP CURRICULUM.
AB AN ARTICULATED TASK CONTINUUM FROM THE SECONDARY TO POSTSECONDARY LEVELS WILL BE DESIGNED; AND SELF-PACED, PERFORMANCE-BASED INSTRUCTIONAL MATERIALS AND TEACHER GUIDES WILL BE DEVELOPED, VALIDATED, PRODUCED, AND DISSEMINATED. TWO THOUSAND COPIES OF STUDENT MANUALS, 100 COPIES OF TEACHER'S GUIDES, ONE MASTER SET OF AUDIOVISUALS, ONE COPY OF THE SCRIPT AND STORY BOARD, AND A COMPLETE BIBLIOGRAPHY WILL BE DELIVERED.

AN 004283. 8203.
FY 1981.
ST FLORIDA.
CD CONGRESSIONAL DISTRICT 07.
PI CC020006.
NO CN: OEC-300-81-0039.
TI DEMONSTRATION AND VALIDATION OF A COMPREHENSIVE ELEMENTARY SECONDARY CAREER EDUCATION PROJECT IN A LOCAL SETTING.
PD HUNT, MYRTLE E.
PHONE (813) 442-1171.
ON SCHOOL BOARD OF PINELLAS COUNTY. 1960 EAST DRUID ROAD, CLEARWATER, FL 33518.
OT LOCAL EDUCATION AGENCY.
SA DIVISION OF CAREER EDUCATION (ED), WASHINGTON, DC.
PO HALL.
DT START DATE 14 JAN 81; END DATE 13 APR 83.
TD 141,543.
FF FY81: $141,543; 14 JAN 81 TO 13 JAN 83.
DN TOTAL PROJECT DOLLARS DO NOT REFLECT PROJECTED MONIES FOR CONTINUING YEARS.
TP RESEARCH AND DEVELOPMENT PERSONNEL.
EL ELEMENTARY AND SECONDARY (K-12).
PR EVALUATION.
MJ CAREER-EDUCATION. DEMONSTRATION-PROGRAMS. PROGRAM-EFFECTIVENESS.
MN ELEMENTARY-SECONDARY-EDUCATION. PRETESTS-POSTTESTS. PROGRAM-EVALUATION. PROGRAM-IMPROVEMENT. OUTCOMES-OF-EDUCATION.
ID FEDERAL. PROPOSAL.
PP CAREER DEVELOPMENT.
AB PINELLAS COUNTY (FLORIDA) PUBLIC SCHOOLS' COMPREHENSIVE CAREER EDUCATION PROGRAM WILL BE STRENGTHENED TO ENSURE THAT THE FIFTY-FOUR CAREER EDUCATION TREATMENT ELEMENTS SPECIFIED IN "A PRIMER FOR CAREER EDUCATION" ARE INCLUDED AND ARE FUNCTIONING SATISFACTORILY. NONFUNCTIONING ELEMENTS NOTED DURING CONTINUAL PROJECT MONITORING THROUGHOUT THE 1981-82 SCHOOL YEAR WILL BE RESTORED. PRETESTS AND POSTTESTS WILL BE ADMINISTERED, AND THE PROGRAM WILL BE EVALUATED RIGOROUSLY IN TERMS OF NINE LEARNER OUTCOMES STATED IN THE PRIMER. EVALUATION DATA WILL BE SUBMITTED TO THE JOINT DISSEMINATION REVIEW PANEL AND APPROVAL SOUGHT FOR CITATION AS AN EDUCATION PROGRAM THAT WORKS. IF APPROVED, THE PROJECT WILL BE AVAILABLE THROUGH THE NATIONAL DIFFUSION NETWORK.

AN 004219. 8203.
FY 1978.
ST PENNSYLVANIA.
PI PA7813302.
NO 93-8001.
TI HEALTH OCCUPATIONS MODULE.
PD MILLER, DOLORES.
DN JUN 1978; 8P.
ID PRODUCT. STATE. CE018089.

The BRS AidPage for the School Practices Information File

BRS

BRS Label:
SPIF

Scope:
Descriptions and availability information on educational programs, curriculum materials, and instructional materials, including audiovisuals and microcomputer software.

Search Aid:
Thesaurus of ERIC Descriptors

Document Delivery:
Availability information accompanies each description

Producer:
BRS
1200 Route 7
Latham, NY 12110

Contact:
BRS Customer Service
800–833-4707
(in continental U.S.)
800–553-5566
(in N.Y. State)
518–783-7251
(collect in Canada)

Updates:
Monthly

Years of Coverage:
Programs and products currently in operation or use

Total Size:
Approximately 20,000 records

Connect Hour Royalty:
$10 for SPIN members
$25 for non-members

Online per Citation Charges:
Free Paragraphs: AN,LN,TI, DT,AU,YR,DE,RT,ID,AV,EV,CP, CT,GL,TG,NT,FS,SD,GS
$.03: PB,AB

Offline per Citation Charges:
$.25 for SPIN members
$.50 for non-members

RECORD STRUCTURE KEY

Label	Paragraph	Function	Example
AN	Accession Number	..s	sp000015.an. 8307.an.
		..l	..l sp > 001234
UP	Update Code	..s	8307.up.
		..l	..l up > 8300
		..l	..l/1 up < 8309
LN	Library Number	..s	009175.ln.
TI	Title	..s	preschool adj program.ti.
DT	Descriptive Title	..s	preschool adj program.dt.
AU	Author	..s	gosling-p$.au. gosling.au.
PB	Publisher	..s	cambridge adj university adj press.pb.
YR	Year	..s	82.yr.
		..l	..l yr = 82
DE	Subject Descriptors	..s	preschool-education speech adj therapy.de.

Label	Paragraph	Function	Example
SW	Single Word Descriptors	..s	music.sw.
RT	Resource Type	..s	agency.rt.
ID	Identifiers	..s	state adj developer.id.
AV	Availability	..s	loan.av.
EV	Evaluation	..s	achievement adj test$.ev.
CP	Contact Person	..s	jim adj newman.cp.
CT	Cost	..s	manual.ct.
GL	Grade Level	..s	'7'.gl.
TG	Target Audience	..s	student.tg.
NT	Notes	..s	meric.nt.
FS	Funding Source	..s	federal.fs.
SD	Source of Data	..s	california with education.sd.
GS	Geographic Source	..s	new adj york.gs.
AB	Abstract	..s	child adj assessment.ab.

BEST COPY AVAILABLE

Sample BRS/SPIF Citations

AN ACCESSION NUMBER: SP014370. 8304.
LN LIBRARY NUMBER: CA-MI-BL-M-O256.
TI TITLE: IMPLEMENTING AUDIOLINGUAL TECHNIQUES TO IMPROVE FOREIGN LANGUAGE ORAL PROFICIENCY THROUGH PEER TUTORING.
AU AUTHOR(S): MORALES-T-M
PB PUBLISHER: NOVA UNIVERSITY: CENTER FOR THE ADVANCEMENT OF EDUCATION; 3301 COLLEGE AVENUE; FORT LAUDERDALE, FL 33314.
YR YEAR: 82.
DE DESCRIPTORS: PEER-TEACHING. AUDIOLINGUAL-METHODS. COGNITIVE-DEVELOPMENT. DRILLS-PRACTICE. VISUAL-LEARNING. DIALOGS-LANGUAGE. JUNIOR-HIGH-SCHOOLS. SECOND-LANGUAGE-LEARNING. SECOND-LANGUAGE-INSTRUCTION. TEACHING-METHODS. LANGUAGE-PROFICIENCY. ORAL-LANGUAGE.
RT RESOURCE TYPE: PROGRAM DESCRIPTION.
ID IDENTIFIERS: FORMAL VERIFICATION.
AV AVAILABILITY: MICROFICHE AND PAPER COPIES ARE AVAILABLE FROM NOVA UNIVERSITY; INFORMATION RETRIEVAL SERVICE; 3301 COLLEGE AVENUE; FORT LAUDERDALE, FL 33314. (305) 475-7388.
CP CONTACT PERSON: INFORMATION RETRIEVAL SERVICE; NOVA UNIVERSITY; 3301 COLLEGE AVENUE; FORT LAUDERDALE, FL 33314. (305) 475-7388.
CT COST: MICROFICHE COPIES AVAILABLE AT $1.50 EACH (UP TO 98 PAGES PER FICHE). 30 PAGES, 1 FICHE, TOTAL $1.50. PAPER COPIES AVAILABLE AT $.10 PER PAGE. 30 PAGES – $3.00. ALL ORDERS PREPAID. MAKE CHECKS PAYABLE TO NOVA UNIVERSITY.
GL GRADE LEVEL: 7, 8, 9.
TG TARGET AUDIENCE: STUDENT.
FS FUNDING SOURCE: PERSONAL.
SD SOURCE DESCRIPTION: MS AND EDS PROGRAMS (GEN., AND EDD IN EARLY CHILDHOOD. CENTER FOR THE ADVANCEMENT OF EDUCATION. NOVA UNIVERSITY.
GS GEOGRAPHIC SOURCE: FLORIDA.
AB ABSTRACT: THE AUTHOR DEVELOPED AND IMPLEMENTED A PROGRAM TO AID THE ORAL PROFICIENCY IN FOREIGN LANGUAGE TEACHING IN A JUNIOR HIGH SCHOOL IN AN AFFLUENT COMMUNITY. THE PROGRAM'S AIM WAS TO HELP FORTY-EIGHT PERCENT OF THE STUDENTS WHO WERE AT THE C, D, AND F LEVELS TO IMPROVE THEIR GRADES. THE PROGRAM EMPLOYED DAILY PEER TUTORING FOR A PERIOD OF TWENTY MINUTES, THE WRITING OF DIALOGUES, AND THE DESCRIPTION OF PICTURES. A SURVEY OF THE CLASS AT THE CONCLUSION OF THE PROGRAM ELICITED FAVORABLE RESPONSES ABOUT THE ACTIVITIES AND THE EFFECTIVENESS OF THE PEER TUTORS. (APPENDICES INCLUDE A SAMPLE PRE-TEST FOR ALL STUDENTS, A SAMPLE PRE-TEST FOR TUTORS, PERFORMANCE SURVEYS, AND ASSESSMENT QUESTIONAIRES.).

AN ACCESSION NUMBER: TC922002 ETS 8309.
TI TITLE: COGNITIVE ORIENTATION QUESTIONNAIRE OF ACHIEVEMENT.
DT SUBTESTS: NORMS; BELIEFS ABOUT SELF; GENERAL BELIEFS; BELIEFS ABOUT GOALS.
AU AUTHOR: KREITLER-HANS; KREITLER-SHULAMITH.
DE DESCRIPTORS: ACHIEVEMENT-NEED. ADOLESCENTS. ATTITUDE-MEASURES. COGNITIVE-PROCESSES. COGNITIVE-STYLE. FOREIGN-COUNTRIES. HEBREW. MOTIVATION. SECONDARY-EDUCATION. SELF-CONCEPT. STUDENT-ATTITUDES.
RT RESOURCE TYPE: ASSESSMENT/SCREENING INSTRUMENT.
ID IDENTIFIERS: ISRAEL; TIM(D).
AV AVAILABILITY: TESTS IN MICROFICHE: TEST COLLECTION, EDUCATIONAL TESTING SERVICE, PRINCETON, NJ 08541.
TG TARGET AUDIENCE: AGE 15-18.
NT NOTES:
ITEMS: 45.
AB ABSTRACT: DESIGNED TO ASSESS FOUR TYPES OF BELIEFS THAT MAY ORIENT AN ADOLESCENT TOWARD ACHIEVING BEHAVIOR. THE BELIEF TYPES INCLUDE NORMS, GENERAL BELIEFS, BELIEFS ABOUT SELF, AND GOALS. THE QUESTIONNAIRE IS TRANSLATED FROM HEBREW.

AN ACCESSION NUMBER: SP000548. 8204.
TI TITLE: THERAPEUTIC INSTRUCTION PRESCHOOL PROGRAM (TIPP).
DT DESCRIPTIVE TITLE: A PRESCHOOL INSTRUCTIONAL AND COORDINATED THERAPY PROGRAM FOR HANDICAPPED CHILDREN IN SPECIAL EDUCATION OR MAINSTREAM SETTINGS.
YR YEAR: 81.
DE DESCRIPTORS: PRESCHOOL-EDUCATION. DISABILITIES. MAINSTREAMING. DIAGNOSTIC-TEACHING. PARENT-PARTICIPATION. THERAPY. PHYSICAL-THERAPY. SPEECH-THERAPY. OCCUPATIONAL-THERAPY.
RT RESOURCE TYPE: PROGRAM DESCRIPTION. CURRICULUM MATERIAL.
ID IDENTIFIERS: STATE DEMONSTRATOR. STATE EXEMPLARY PROJECT.
CP CONTACT PERSON: LOIS WURMBRAND; DR. ELIZABETH NEUMANN, CHILDREN'S SERVICES CENTER; CASA COLINA HOSPITAL; 255 E BONITA AVE; POMONA, CA 91767. (714) 593-7521.
GL GRADE LEVEL: PRE-K, K.
TG TARGET AUDIENCE: STUDENT, PARENT, TEACHER.
FS FUNDING SOURCE: FEDERAL ESEA TITLE IV-C.
SD SOURCE DESCRIPTION: SHARING EDUCATIONAL SUCCESS, TRAVELING SEMINARS. CALIFORNIA STATE DEPT OF EDUCATION, 1981.
GS GEOGRAPHIC SOURCE: CALIFORNIA.
AB ABSTRACT: TIPP PROVIDES THE SCHOOL DISTRICT AND/OR TEACHER WITH SPECIFIC MATERIALS TO USE FOR CHILD ASSESSMENT, PROGRAM PLANNING, AND PARENT WORKSHOPS. SUGGESTIONS ARE ALSO INCLUDED FOR BLENDING THESE TECHNIQUES WITH OTHER MATERIALS AND FOR ADAPTING THEM TO DIFFERENT SPECIAL NEED POPULATIONS: PHYSICALLY HANDICAPPED, LEARNING HANDICAPPED, MULTIHANDICAPPED, ETC. THE PROGRAM HAS A FOUR-POINT THEORETICAL BASE: (A) TEACHER AS TRANSPROFESSIONAL, COMBINING TRADITIONAL EDUCATIONAL TECHNIQUES WITH APPROPRIATE METHODS FROM OTHER DISCIPLINES: PHYSICAL THERAPY, OCCUPATIONAL THERAPY, SPEECH, ETC., (B) EMPHASIS ON CHILD'S STRENGTH AREAS, (C) PARENTS INVOLVED IN PLANNING AND IMPLEMENTATION AND RECEIVING PARENT ADVOCACY TRAINING, AND (D) A WRITTEN CURRICULUM COMBINING SPECIFIC PRESCRIPTIVE TEACHING WITH GROUP AND PLAY APPROACHES.

BEST COPY AVAILABLE

The BRS AidPage
for
Vocational Education Curriculum Materials

BRS Label:
VECM

Scope:
Currently available print and nonprint vocational education and technical curriculum materials.

Search Aids:
A Classification of Instructional Programs (available from NCES)

Document Delivery:
Materials available through Curriculum Coordination Centers or through the organization mentioned in the citation.

Producer:
Curriculum Coordination Centers
and The National Center for
Research in Vocational
Education
Ohio State University
1960 Kenny Road
Columbus, OH 43210

Contact:
Carl Oldsen
(technical information)
Judy Wagner
(search information)
800–848-4815 or
614–486-3655 in Ohio

Years of Coverage:
Most products are 1977 to date with selected older coverage.

Total Size:
Over 2,200 records

Updates:
Quarterly

Connect Hour Royalty:
None

Online per Citation Charges:
Free Paragraphs: AN, UP, TI, YR, SA, ST, SM, EL, IU, SP, PM, FO, NM, DN, CI, CC, AA
$.03: DV, AV

Offline per Citation Charges:
None

RECORD STRUCTURE KEY

Label	Paragraph	Function	Example
AN	Accession Number	..s	000103.an. 8305.an.
UP	Update	..s @ ..l	8305.up. @up > 8212 ..l/1 up = 8305
TI	Title	..s	career.ti.
YR	Year	@	@yr = 1978
SA	Sponsoring Agency	..s	national adj institute adj education.sa.
ST	State	..s	oklahoma.st.
DV	Developer	..s	media adj implementation adj center.dv.
SM	Subject Matter Descriptors	..s	health-education.sm. health adj education.sm. health.su.
EL	Educational Level	..s	11-12.el.
IU	Intended User	..s	teacher.iu.
SP	Student Target Population	..s	handicapped.sp.
PM	Print Material	..s	workbook.pm.
FO	Format	display	
NM	Nonprint Media	..s	cassette.nm.
DN	Descriptive Note	..s	food adj service.dn.
CI	Copyright Information	display	
AV	Availability	..s	curriculum adj management adj center.av.
CC	Curriculum Center Code	..s	ec.cc.
AA	Additional Availability	..s	state adj supervisor.aa.

Sample BRS/VECM Citations

AN 000117.
TI CONSUMER EDUCATION FOR FAMILIES
WITH LIMITED INCOMES WITH SPANISH
SUPPLEMENT.
YR 1980.
SA TEXAS EDUCATION AGENCY.
201 11TH.
AUSTIN, TX 78701.
ST TEXAS.
DV HOME ECONOMICS INSTRUCTIONAL
MATERIALS CENTER.
PO BOX 4067.
LUBBOCK, TX 79409.
SM HOME-ECONOMICS.
VOCATIONAL-HOME-ECONOMICS.
CONSUMER-HOMEMAKING-HOME-ECONOMICS.
CONSUMER-EDUCATION.
EL ADULT.
IU TEACHER.
SP DISADVANTAGED; LIMITED ENGLISH.
PM CURRICULUM GUIDE; TEACHING GUIDE;
EVALUATION MATERIAL; BIBLIOGRAPHY;
COMPETENCY-BASED; TASK ANALYSIS;
FIELD-TESTED/VALIDATED; ILLUSTRATED.
FO 709 PP.
DN CONTAINS 11 TEACHING UNITS INCLUDING SUGGESTED TEACHING AND EVALUATION TECHNIQUES. ACCOMPANIED BY TEACHING AIDS, HANDOUTS, AND VISUALS IN BOTH ENGLISH AND SPANISH. CONTAINS SYNTHESIS OF RESEARCH ON THE DISADVANTAGED AND SUGGESTIONS FOR WORKING WITH INDIVIDUALS.
CI MAY NOT BE REPRODUCED WITHOUT WRITTEN PERMISSION FROM THE PUBLISHER.
AV SALE $17.50.
BETTY ROBINSON; HOME ECONOMICS INSTRUCTIONAL MATERIALS CENTER.
PO BOX 4067.
LUBBOCK, TX 79409.
(806) 742-3028.

AN 001750.
TI BUSINESS AND OFFICE EDUCATION,
WORD PROCESSING — KIT NO. 202.
YR 19[illegible].
SA SOUTH CAROLINA DEPARTMENT OF
EDUCATION, OFFICE OF VOCATIONAL
EDUCATION.
RUTLEDGE BUILDING,
1429 SENATE STREET.
COLUMBIA, SC 29201.
ST SOUTH CAROLINA.
DV SOUTH CAROLINA DEPARTMENT OF
EDUCATION, OFFICE OF VOCATIONAL
EDUCATION.
RUTLEDGE BUILDING,
1429 SENATE STREET.
COLUMBIA, SC 29201.
LIVINGSTON, M.E.; HAWKINS, N.M.
SM BUSINESS.
BUSINESS-OFFICE.
SECRETARIAL-RELATED-PROGRAMS.
WORD-PROCESSING.
EL 9-10.
IU STUDENT; TEACHER.
SP REGULAR.
PM TEACHING GUIDE; LEARNING MODULE;
INDIVIDUALIZED, SELF PACED.
FO 24 PP.
CI CONTACT SOUTH CAROLINA OFFICE OF VOCATIONAL EDUCATION FOR REPRINT INFORMATION.
AV LOAN 2 WEEKS.
LIBRARIAN, SOUTHEAST CURRICULUM
COORDINATION NETWORK.
PO DRAWER DX.
MISSISSIPPI STATE, MS 39762.
(601) 325-2510.
CC SE LB-1029.C3-.S6R-1982-NO.202.
AA STATE SUPERVISOR, PREVOCATIONAL EDUCATION, 9TH FLOOR RUTLEDGE BUILDING, 1429 SENATE STREET, COLUMBIA, SC 29201.

BRS INFORMATION TECHNOLOGIES™

AIDPAGE
ONED

Ontario Education Resources Information Database

BRS Label:
ONED

Scope:
Includes education research, curriculum guidelines, reports and other materials produced or sponsored by Ontario school boards, the Ministries of Education and Colleges and Universities, and other agencies, authorities and educational organizations.

Producer:
Ontario Ministry of Education
Mowat Block, 13th Floor
Queens Park
Toronto, Ontario M7A 1L2

Contact:
Anna Lau
416–965-4110

BIBL Paragraphs:
AN, MT, MS, TI, AU, IN, PB, SO, YR, AV

Years of Coverage:
1974 to the present with selected retrospective coverage.

Total Size:
Approximately 6000 records as of April 1983

Updates:
Every other month

RECORD STRUCTURE KEY

Label	Paragraph	Function	Example
AN	Accession Number	s @	on02797.an. @cd > 80100 @er = 00362
	Update Code	@ l	@up > 8303 ..l/1 up > 8303
SF	Subfile	s	research.sf.
MT	Material Type	s	handbook.mt.
MS	Material Status	s	progress.ms.
LG	Language	s	francais.lg.
TI	Title	s	environmental with studies.ti.
AU	Author	s	johnson-eileen$.au.
IN	Corporate Author Information	s	ontario with research adj council.in.
PB	Publication Information	s	ottawa with research adj centre.pb.
SO	Journal	s	teacher adj education.so.
YR	Date	s @	1982.yr. @yr > 1980

Label	Paragraph	Function	Example
DE	Descriptors	s	secondary-schools.de. special adj education.de.
EL	Education Level	s	primary adj division.el. grade-2.el.
TP	Target Population	s	mentally with handicapped.tp. adults.tp.
AB	Abstract	s	socioeconomic adj status.ab.
SC	Special Features/ Components	s	bibliography.sc.
TE	Tests/Instruments	s	mathematics.te.
NT	Notes	s	french with (transl$ or version).nt.
GS	Geographic Source	s	central adj ontario.gs.
FS	Funding Source	s	ontario adj ministry with education.fs.
CP	Contact Person	s	adams-v$.cp.
AV	Availability	display	n/a

l: indicates limit function. The limit function is not available for menu-driven services.

BEST COPY AVAILABLE

Sample BRS/ONED Citations

AN	ON01913.
SF	RESEARCH AND REPORTS.
MT	REPORT.
LG	ENGLISH.
TI	THE DEVELOPMENT OF A COMPUTERIZED SYSTEM TO ORGANIZE GUIDANCE DATA. SERIES TITLE: RESEARCH REPORT: 78-15.
AU	PERSONAL AUTHOR: PICARD-DONALD-DANIEL: DUPONT-FRED.
IN	ADDITIONAL AUTHOR: ONTARIO EDUCATIONAL RESEARCH COUNCIL.
PB	OTTAWA: OTTAWA BOARD OF EDUCATION. RESEARCH CENTRE. 19 P.
YR	1978.
DE	GUIDANCE SERVICES. ELEMENTARY SCHOOLS. INFORMATION SYSTEMS. USE OF STUDENT RECORDS IN SECONDARY SCHOOLS – STUDY REGIONS: OTTAWA.
AB	ANNOTATION/CONTENT: THIS REPORT DESCRIBES THE DEVELOPMENT OF A COMPUTERIZED SYSTEM FOR PROVIDING FEEDER SCHOOL STAFF WITH DESCRIPTIVE DATA ABOUT THEIR STUDENTS' ACHIEVEMENT IN GRADE 9. DATA WERE INTENDED TO DESCRIBE THE ACADEMIC LOAD OF THE AVERAGE GRADE 9 STUDENT, THE NUMBER OF ADVANCED LEVEL COURSES TAKEN BY THE AVERAGE STUDENT, THE EFFECTS OF COURSE LOAD ON ACHIEVEMENT, AND RELATIONS BETWEEN COURSE LOAD, ACADEMIC ABILITY, AND ACHIEVEMENT. THE SYSTEM CONSISTS OF A SERIES OF 3-DIMENSIONAL MATRICES OF 10 × 9 × 21 DIMENSIONS. BASIC TO WHICH IS A 2-DIMENSIONAL RELATIONSHIP BETWEEN THE STUDENT'S COURSE LOAD AND YEAR-END AVERAGE IN GRADE 9. THIRD DIMENSION VARIABLES CONSIST OF STANDARDIZED ACHIEVEMENT TEST SCORES.
SC	APPENDICES CONSISTING OF A CODING SHEET AND A SAMPLE REPORT PREPARED FOR AN OTTAWA SECONDARY SCHOOL.
TE	NOT INCLUDED: HENMON-NELSON TESTS OF MENTAL ABILITY: DIFFERENTIAL APPTITUDE TEST: OTTAWA BOARD OF EDUCATION MATHEMATICS ACHIEVEMENT TEST.
NT	"A PAPER PRESENTED AT THE TWENTIETH ANNUAL CONFERENCE OF THE ONTARIO EDUCATIONAL RESEARCH COUNCIL".
AV	MF NOT AVAILABLE AT TIME OF PRINTING: HC: AVAILABLE FOR REFERENCE AT INFORMATION CENTRE, ONTARIO MINISTRY OF EDUCATION. MOWAT BLOCK, TORONTO.

AN	CD03467.
SF	CURRICULUM.
MT	CORRESPONDENCE COURSE.
MS	CURRENT.
LG	FRANCAIS.
TI	EDUCATION DU CONSOMMATEUR: EC-20.
IN	AUTEUR COLLECTIVITE: MINISTERE DE L'EDUCATION DE L'ONTARIO. AUTEUR SECONDAIRE: ONTARIO MINISTRY OF EDUCATION.
PB	TORONTO 4 v.
YR	1982.
DE	MATIERE DE PROGRAMME-SCOLAIRE: CONSUMER STUDIES.
EL	INTERMEDIATE DIVISION: GRADE 10.
TP	ADULTS.
AV	HC: $52.00 AVAILABLE FROM CORRESPONDENCE EDUCATION BRANCH, ONTARIO MINISTRY OF EDUCATION.

AN	ON00838.
SF	RESEARCH AND REPORTS.
MT	JOURNAL ARTICLE.
LG	ENGLISH.
TI	ELEMENTARY EDUCATION FOR THE GIFTED STUDENTS: A REVIEW OF RESEARCH AND CURRENT TRENDS.
AU	PERSONAL AUTHOR: SMYTHE-PADRIC-C; STENNETT-RICHARD-G.
IN	ADDITIONAL AUTHOR: LONDON BOARD OF EDUCATION. RESEARCH DEPT.
PB	19–24.
SO	SPECIAL EDUCATION. JANUARY 1973.
YR	1973.
DE	GIFTED STUDENTS. ELEMENTARY SCHOOLS. SCREENING AND PROGRAMS: ACCELERATION. ABILITY GROUPING AND ENRICHMENT PROGRAMS.
AB	ANNOTATION/CONTENT: THE ARTICLE BRIEFLY DESCRIBES THE SIGNIFICANT ISSUES INVOLVED IN DESIGNING A PROGRAM FOR THE GIFTED. DISCUSSED ARE: DEFINING GIFTEDNESS, IDENTIFYING GIFTED CHILDREN, DISTINGUISHING THE GIFTED FROM THE AVERAGE OR NORMAL STUDENT, FORMULATING THE GOALS AND OBJECTIVES OF AN EDUCATIONAL PROGRAM FOR THE GIFTED, AND DETERMINING HOW BEST TO ACHIEVE THE DESIRED EDUCATIONAL OUTCOMES. ALSO BRIEFLY DESCRIBED ARE VARIATIONS IN THE ALTERNATIVE PROGRAMS USED IN THE EDUCATION OF THE GIFTED, BROADLY CATEGORIZED AS ACCELERATION, ENRICHMENT, AND SPECIAL GROUPING PROGRAMS. THE RESULTS OF AN EVALUATION OF VARIOUS U.S. PROGRAMS ARE OUTLINED, AND PROBLEMS OF RESEARCH DESIGN AND INSTRUMENTATION ARE NOTED. INCLUDED IS A 14-ITEM BIBLIOGRAPHY.
NT	1. THE RESEARCH REPORTED IN THIS ARTICLE WAS DONE BY THE LONDON BOARD OF EDUCATION RESEARCH DEPT. 2. ARTICLE HAS BEEN MICROFICHED WITH PERMISSION OF THE JOURNAL.
AV	MF: $0.50.

AN	ARCH03544.
SF	COMMISSIONS AND SPECIAL PROJECTS: SERP.
MT	REPORT.
LG	ENGLISH.
TI	ACHIEVEMENT OF ONTARIO GRADE 13 STUDENTS IN UNIVERSITY.
AU	PERSONAL AUTHOR: KING-ALAN-J-C; PARAGG-R; PEARSON-M; ALLEN-H-A-J; THOMPSON-L-H.
IN	ADDITIONAL AUTHOR: SOCIAL PROGRAM EVALUATION GROUP.
PB	KINGSTON: QUEEN'S UNIVERSITY. SOCIAL PROGRAM EVALUATION GROUP. VIII, 97 P.
YR	1981.
DE	UNIVERSITIES. UNDERGRADUATE PROGRAMS. ADMISSION CRITERIA. UNDERGRADUATE STUDENTS. ACADEMIC ACHIEVEMENT RELATED TO COMPLETION OF GRADE 13.
NT	AN ABSTRACT FOR THIS DOCUMENT HAS BEEN PREPARED AND IS AVAILABLE IN THE EDUC DATABASE (ON02256).
GS	EASTERN ONTARIO.
FS	ONTARIO MINISTRY OF EDUCATION. CONTRACTUAL RESEARCH.

Appendix B

Database Field Source Examples

APPENDIX A

BRS/RICE: Frequently Employed ERIC Descriptors

LEVEL

- Preschool-Education
- Elementary-Education
- Primary-Education
- Intermediate-Grades
- Middle-Schools
- Junior-High-Schools
- High-Schools
- Secondary-Education
- Postsecondary-Education

AUDIENCE/FUNCTION

- Administration
  - Attendance
  - Facilities
  - Finance
  - Grading
  - Personnel
  - Student-Records
- Computer-Managed-Instruction
- Guidance
- Instruction
- Libraries
- Readability
- Special-Education
  - Disabilities
- Testing

SUBJECT AREAS

- Art
  - Music
  - Visual-Arts
  - Fine-Arts
- Basic-Skills
- Business-Education
  - Office-Occupations
- Computer-Managed-Instruction
- Computer-Science
  - Programming
- Consumer-Education
- Home-Economics
- Language-Arts
  - Reading
  - Spelling
  - Writing
  - Speech
  - Grammar
  - Vocabulary
  - Punctuation
- Languages
  - English
  - French
  - German
  - Spanish
- Vocational-Education
  - Career-Education
  - Industrial-Arts
- Mathematics
  - Algebra
  - Arithmetic
  - Calculus
  - Geometry
  - Probability
  - Statistics
  - Trigonometry
  - Logic
  - Problem-Solving

  - Health-Education

- Sciences
  - Astronomy
  - Biology
  - Chemistry
  - Earth-Science
  - Environmental-Education
  - Physics
  - Physical-Science
- Social Studies
  - American-Government
  - Citizenship
  - Economics
  - Geography
  - History
  - Political-Science
  - Psychology
  - Sociology

NOTE: These lists by no means contain all of the descriptors used in RICE, especially as new descriptors are added in bimonthly updates. Any assignment of descriptors does, however, begin with this list.

APPENDIX A

Sponsoring Agency: STATE

Alabama State Department of Education, Montgomery
Alaska State Department of Education, Juneau
American Samoa Department of Education, Pago Pago
Arizona State Department of Education, Phoenix
Arkansas State Department of Education, Little Rock
California State Department of Education, Sacramento
Colorado State Department of Education, Denver
Connecticut State Department of Education, Hartford
Delaware State Department of Public Instruction, Dover
District of Columbia Public Schools, Washington, D.C.
Florida State Department of Education, Tallahassee
Georgia State Department of Education, Atlanta
Guam Department of Education, Agana
Hawaii State Department of Education, Honolulu
Idaho State Department of Education, Boise
Illinois State Office of Education, Springfield
Indiana State Board of Vocational and Technical Education, Indianapolis
Iowa State Department of Public Instruction, Des Moines
Kansas State Department of Education, Topeka
Kentucky State Department of Education, Frankfort
Louisiana State Department of Education, Baton Rouge
Maine State Department of Educational and Cultural Services, Augusta
Maryland State Department of Education, Baltimore
Massachusetts State Department of Education, Boston
Michigan State Department of Education, Lansing
Minnesota State Department of Education, St. Paul
Mississippi State Department of Education, Jackson
Missouri State Department of Elementary and Secondary Education, Jefferson City
Montana State Office of the Superintendent of Public Instruction, Helena
Nebraska State Department of Education, Lincoln
Nevada State Department of Education, Carson City
New Hampshire State Department of Education, Concord
New Jersey State Department of Education, Trenton
New Mexico State Department of Education, Santa Fe
New York State Education Department, Albany
North Carolina State Board of Education, Raleigh
North Dakota State Board for Vocational Education, Bismarck
Ohio State Department of Education, Columbus
Oklahoma State Department of Education, Stillwater
Oregon State Board of Education, Salem
Pennsylvania State Department of Education, Harrisburg
Puerto Rico State Department of Education, Hato Rey
Rhode Island State Department of Education, Providence
South Carolina State Department of Education, Columbia
South Dakota State Department of Education and Cultural Affairs, Pierre
Tennessee State Department of Education, Nashville
Texas Education Agency, Austin
Utah State Board for Vocational Education, Salt Lake City
Vermont State Department of Education, Montpelier
Virgin Islands Government Department of Education, Charlotte Amalie
Virginia State Department of Education, Richmond
Washington State Commission for Vocational Education, Olympia
West Virginia State Department of Education, Charleston
Wisconsin State Board of Vocational, Technical, and Adult Education, Madison
Wyoming State Department of Education, Cheyenne

Sponsoring Agency FEDERAL

Department of Labor, Washington, DC
Fund for the Improvement of Postsecondary Education (ED), Washington, DC
National Center for Education Statistics (ED), Washington, DC
National Institute of Education (ED), Washington, DC
Office of Bilingual Education and Minority Languages Affairs (ED), Washington, DC
Division of Career Education (ED), Washington, DC
Office of Special Education and Rehabilitative Services (ED), Washington, DC
Office of Vocational and Adult Education (ED), Washington, DC

APPENDIX A

Available Categories for VECM Paragraphs

Educational Level (EL)

K-6
7-8
9-10
11-12
13-14
Adult
Higher Education

Intended User (IU)

Student
Teacher
Administrator
Teacher Educator
Counselor

Student Target Population (SP)

Regular
Disadvantaged
Handicapped
Limited English
Bilingual

Print Material (PM)

Administrative Manual
Curriculum Guide
Teaching Guide
Reference Material
Textbook
Evaluation Instrument
Learning Module
Workbook
Game/Simulation
Bibliography
Directory/Catalog
Competency-Based
Task Analysis
Criterion Referenced
Evaluation
Behavioral Objectives
Individualized,
  Self Paced
Programmed Instruction
Field-Tested/Validated
Illustrated
Other (Specify)

Nonprint Media (NM)

Film
Videotape
Audiotape
Filmstrip
Slides
Transparency
Microfiche

Curriculum Coordination Centers (CC)

East Central (EC)
Midwest (MW)
Northeast (NE)
Northwest (NW)
Southeast (SE)
West (WE)

APPENDIX A

MATERIAL TYPE

English	French
BIBLIOGRAPHY	BIBLIOGRAPHIE
BRIEF	MEMOIRE
CIRCULAR	CIRCULAIRE
CONFERENCE PAPER	DISCOURS DE CONFERENCE
CONFERENCE PROCEEDINGS	COMPTE RENDU DE CONFERENCE
DIRECTORY	REPERTOIRE D'ADRESSES
DISCUSSION PAPER	DOCUMENT DE TRAVAIL
EVALUATION MEASURES	INSTRUMENTS D'EVALUATION
GUIDELINE	PROGRAMME-CADRE
HANDBOOK	MANUEL
JOURNAL ARTICLE	ARTICLE DE REVUE
JOURNAL ISSUE	NUMERO DE REVUE
LITERATURE REVIEW	REVUE DE LA DOCUMENTATION
REPORT	RAPPORT
RESEARCH	RECHERCHE
RESOURCE DOCUMENT	DOCUMENT D'APPUI
SPEECH	DISCOURS
STATISTICAL TABLES	STATISTIQUES
THESIS	THESE

MATERIAL STATUS

English	French
In progress	En voie de developpement
Current	Courant
Superseded	Remplace

APPENDIX B
Descriptors for Curriculum Documents

English	French
accounting	comptabilite
art	arts
biology	biologie
Black studies	- -
business studies	affaires et commerce
Canadian studies	etudes canadiennes
chemistry	chimie
classical studies	etudes classiques
computer science	informatique
construction technology	technologie de la construction
consumer studies	education du consommateur
curriculum	programme scolaire
dramatic arts	expression dramatique
driver education	conduite automobile
economics	economique
electrical technology	electricite
elementary education	enseignement elementaire
English	- -
English as a second language	anglais comme langue seconde
environmental science	sciences de l'environnement
environmental studies	etudes de l'environnement
family studies	sciences familiales
fashion arts	mode
- -	francais
French	- -
French as a second language	francais langue seconde
geography	geographie
geology	geologie
German	allemand
graphic arts	arts graphiques
guidance	orientation
health education	hygiene
history	histoire
industrial arts	arts industriels
Italian	italien
informatics	informatiques
Latin	latin
law	droit
library	bibliotheconomie
life skills	preparation a la vie
machine applications	utilisation des machines
marketing	- -
mathematics	mathematiques
mechanical technology	mechanique
modern languages	langues vivantes
multiculturalism	multiculturalisme
multidisplinary studies	etudes multidisciplinaires
music	musique

APPENDIX C
Educational Level of Curriculum Documents

English	French
ADULT	ADULTES
JUNIOR KINDERGARTEN	PRE-MATERNELLE
SENIOR KINDERGARTEN	MATERNELLE
KINDERGARTEN	JARDIN
GRADE 1	1RE ANNEE
GRADE 2	2E ANNEE
GRADE 3	3E ANNEE
GRADE 4	4E ANNEE
GRADE 5	5E ANNEE
GRADE 6	6E ANNEE
GRADE 7	7E ANNEE
GRADE 8	8E ANNEE
GRADE 9	9E ANNEE
GRADE 10	10E ANNEE
GRADE 11	11E ANNEE
GRADE 12	12E ANNEE
GRADE 13	13E ANNEE
PRIMARY DIVISION	CYCLE PRIMAIRE
JUNIOR DIVISION	CYCLE MOYEN
INTERMEDIATE DIVISION	CYCLE INTERMEDIAIRE
SENIOR DIVISION	CYCLE SUPERIEUR
PREKINDERGARTEN	CLASSE D'ACCUEIL
POSTSECONDARY	POSTSECONDAIRE
MODIFIED LEVEL	NIVEAU MODIFIE
BASIC LEVEL	NIVEAU FONDAMENTAL
GENERAL LEVEL	NIVEAU GENERAL
ADVANCED LEVEL	NIVEAU AVANCE

The levels refer to difficulty levels of programs in the intermediate and senior divisions. The grade levels associated with the divisions are as follows:

Primary division: Junior Kindergarten – grade 3
Junior division: Grades 4–6
Intermediate division: Grades 7–10
Senior Division: Grades 11–13

APPENDIX D
Target Populations

	English	**French**
General		
	parents	parents
Special student groups:		
	behaviour problems	problemes du comportement
	blind students	eleves aveugles
	Canadian Indian students	eleves autochtones
	communication disorders	troubles de communication
	deaf students	eleves sourds
	disadvantaged students	eleves defavorises
	educable mentally retarded	deficient mental leger
	emotionally disturbed	perturbations affectives
	gifted students	eleves surdoues
	hearing impaired	deficiences auditive
	homebound students	eleves confines a la maison
	hospitalized students	eleves confines a l'hopital
	hyperactive students	suractivite
	language handicapped	trouble du langage
	learning difficulties	difficultes d'apprentissage
	learning disabilities	difficultes d'apprentissage
	mentally retarded	deficient mental
	multihandicapped	polyhandicapes
	perceptually handicapped	troubles de la perception
	physically handicapped	handicapes physiques
	trainable mentally retarded	deficient mental moyen
	visually impaired	deficiencies visuelles

APPENDIX E
Geographic Source

English	French
Central Ontario	Centre de l'Ontario
Eastern Ontario	Est de l'Ontario
Western Ontario	Ouest de l'Ontario
Northwestern Ontario	Nord-Ouest de l'Ontario
Northeastern Ontario	Nord-Est de l'Ontario
Midnorthern Ontario	Centre-Nord de l'Ontario

APPENDIX F
Addresses of the Established Depositories

Government Documents Collection
The Library
Brock University
St. Catharines, Ontario, Canada
L2S 3A1

R.W.B. Jackson Library
The Ontario Institute for Studies in Education
252 Bloor Street West
Toronto, Ontario, Canada
M5S 1V6

Library, Faculty of Education
University of Ottawa
651 Cumberland Avenue
Ottawa, Ontario, Canada
K1N 6N5

Library, Faculty of Education
University of Toronto
371 Bloor Street West
Toronto, Ontario, Canada
M5S 2R7

The Library
Trent University
Peterborough, Ontario, Canada
K9J 7B8

The Library, Faculty of Education
Althouse College
University of Western Ontario
1137 Western Road
London, Ontario, Canada
N6G 1G7

EVALUATION UPDATE

A MODEL SYSTEM FOR THE DESIGN AND MAINTENANCE OF RELATED INSTRUCTION CURRICULA FOR APPROVED U. S. DEPARTMENT OF LABOR APPRENTICESHIP PROGRAMS

Carl Horstrup, Project Director
Lane Community College
4000 East 30th Street
Eugene, Oregon 97405

Submitted by
E. Wayne Courtney, Third Party Evaluator
3220 N.W. Arrowood Circle
Corvallis, Oregon 97330
(503) 758-7325

June 18, 1987

18 June 1987

TO: Carl Horstrup, Project Director
cc: Burr Fancher

FROM: E. Wayne Courtney, Project Evaluator

Re: Evaluation Update

The following items apply to the First Phase of the Apprenticeship Training Materials Clearinghouse Project which is being conducted at Lane Community College (Eugene, Oregon). This update includes a reporting of activities which have been completed along with recommendations and is based upon reviews of project progress from key personnel on the Project staff. The report is summarized according to objective-status sequence for Phase I.

Objective	Strategy-Activity Status
1.1	Searches have been completed for existing apprenticeship related materials.
1.2	A printed directory of apprenticeship materials is nearly completed and will be available to the Project Director prior to July 1, 1987.
1.3	A gap analysis report has been submitted to the Project Director (see Appendix).
2.1	Recommended lists of specific modules to be developed in the trade areas will be completed by the Project Coordinator before July 1, 1987.
2.2	Processes for the development of instructional materials have been defined for the Project.
3.1	BRS Search technology software has been secured for use as the database management system for the Project. The ERIC system format, with some modifications, is recommended as the standard for the system. The Abstrator/Indexes Workbook and the Thesaurus of ERIC Descriptors resources have been recommended for use with the database management system (see Appendix).

Update (page 2)
18 June 1987

Objective	Strategy-Activity Status
3.1	The User Guide for conducting the computer searches of the database has not yet been completed. Guidelines for updating and expanding the database and procedures for ordering materials via computer have not been done.
3.2	This objective was deleted from the Project proposal.
3.3	Some of the ordering information has been included in the Print Directory, which is now in the completion stage. Modem ordering steps have not been developed.
4.1	Field test sites have been selected and include the following locations: 1.) Wisconsin System of Vocational-Technical Education 2.) DuPont Corporation (Tennessee) 3.) Wahpeton Technical Institute (No. Dakota)
4.2	Materials for the field testing have not been disseminated to the test sites.

Note: The Project Director has been notified that Phase II of the Clearinghouse Project has been funded for the coming year.

RECOMMENDATIONS

OBJECTIVE 3.1	THE COMPLETION OF THIS OBJECTIVE IS CRITICAL TO THE PROJECT. THE USER GUIDE, AS WELL AS THE PURCHASE OF NECESSARY COMPUTER HARDWARE, SHOULD BE GIVEN TOP PRIORITY IF THE PROJECT IS TO CONTINUE ACCORDING TO SCHEDULE.
OBJECTIVE 3.3	THE CLEARINGHOUSE SHOULD CONSIDER ITSELF AS A REFERRAL AGENCY IN TERMS OF ORDERING VIA MODEM. THE USE OF HIGH CAPACITY DISKS AND PRINTED MATERIAL DISSEMINATION SEEM TO BE THE DIRECTION WHICH IS APPLICABLE TO THE FUTURE ROLE OF THE PROJECT'S OUTCOME.
OBJECTIVE 4.2	THE DISTRIBUTION OF MATERIALS FOR FIELD TESTING SHOULD BE CARRIED OUT AS EARLY AS POSSIBLE IN ORDER TO FACILITATE THE FIELD TEST ACTIVITY.

APPENDIX

GAP ANALYSIS REPORT FOR APPRENTICESHIP RELATED TRAINING CURRICULUM MATERIALS CLEARINGHOUSE

PACIFIC CREST RESEARCH AND SERVICES CORPORATION REPORT ON COMPUTERIZED DATABASE

GAP ANALYSIS

for

APPRENTICESHIP RELATED TRAINING CURRICULUM MATERIALS CLEARINGHOUSE

June 1987

CARL HORSTRUP, PROJECT DIRECTOR
Lane Community College
4000 East 30th Avenue
Eugene, Oregon 97405
Telephone: (503) 747-4501, ext. 2843

I. INTRODUCTION

A nationwide needs assessment was conducted to determine what should be included in an apprenticeship materials clearinghouse. The needs assessment identified the needs for clearinghouse services; defined the needs of individual states; and described materials most needed from a clearinghouse.

The next logical step is to determine which portion of the total need can be met by a clearinghouse. If the materials are available somewhere in the U.S. or Canada, the clearinghouse can serve as the middleman between the producer of materials and potential users. However, if the materials do not exist, the clearinghouse cannot meet the immediate need of the user. The relationship of supply and demand must be analyzed and recommendations made to curriculum developers on those areas of deficiency. Once the curriculum deficient areas are identified, additional effort will be expended to locate such materials through corporations, private vendors and other sources that have not been highly visible to users in the field. If the efforts to locate needed curriculum fails, the clearinghouse is responsible for making recommendations on the priorities for curriculum development to satisfy the unmet needs.

A deficiency analysis (gap analysis) defines the difference between "what is available" and "what is needed" in curriculum materials. This analysis is critical in providing direction for the development of clearinghouse services.

II. METHODOLOGY

The results of the needs assessment defines the curriculum needs of apprenticeship related training as determined by mail survey and personal contact. The survey involved 158 institutions and agencies who are responsible for apprenticeship related training in the United States and Canada.

Electronic searches were made of several major data bases to determine the availability of materials in the public domain. One of the searches yielded over 2,000 sources of curriculum information. These searches were screened by the project advisory council to select relevant and current material for the clearinghouse.

A six month effort has been devoted to identifying what is available. This effort will continue throughout the life of the project. Staff will continue with the electronic search procedure as new search strategies are identified. Mail and telephone contacts with potential users will increase as the project develops and becomes established as a clearinghouse.

This analysis compares the needs expressed by the respondents with available sources of curriculum materials. Five suggested sources of materials have been listed for each area of need. Those cases with less than five listed sources are considered as curriculum deficient areas and are recommended as a focus for curriculum development.

III. FINDINGS

Curriculum Need Area	Sources for Meeting Need	Remediation
Industrial Maintenance Electrician	1. CIMC (Oklahoma) 2. Associated Builders & Cont. 3. Lane Community College 4. Military Curriculum 5. Michigan State Dept. of Ed.	Needs can be met with clearinghouse services.
Instrument Repairer	1. Military Curriculum 2. Lane Community College 3. CIMC (Oklahoma) 4. NUS Training Corporation 5. TPC Training Systems	Needs can be met with clearinghouse services.
Electrical Repairer	1. Associated Builders & Cont. 2. CIMC (Oklahoma) 3. Michigan State Dept. of Ed. 4. NUS Training Corporation 5. TPC Training Systems	Needs can be met with clearinghouse services.
Millwright	1. Associated General Cont. 2. Lane Community College 3. TPC Training Systems 4. British Columbia Apptship. 5. CIMC (Oklahoma)	Needs can be met with clearinghouse services.
Machine Repairer*	1. (Materials specific to 2. machine repairer have 3. not been identified by 4. search process.) 5.	Need job analysis to define skills.
Industrial Maintenance	1. Georgia 2. Associated Builders & Cont. 3. Associated General Cont. 4. Military Curriculum 5. Mid-America Consortium	Needs can be met with clearinghouse services.
Patternmaker	1. (Materials specific to 2. patternmaking have not 3. been identified by the 4. search process.) 5.	Need occupational analysis and curriculum development.
Tool and Die Maker	1. CIMC (Oklahoma) 2. Military Curriculum 3. Publication Services, B.C. 4. Pennsylvania State Dept.Ed. 5. Florida State Dept. of Ed.	Needs can be met with clearinghouse services.

* Machine repairer is a general term. For the purpose of this analysis, it is assumed that the occupation deals with repair of typewriters, computers, cash registers and coin-operated machines. Further definition is needed.

Curriculum Need Area	Sources for Meeting Need	Remediation
Machinist	1. New Hampshire	Needs can be met with clearinghouse services.
	2. CIMC (Oklahoma)	
	3. Voc. Curr. Lab. (W. VA)	
	4. Florida SDE	
	5. Voc.Inst.Serv.(Tex A & M)	
Sheet Metal	1. Mid-American Curr. Consortium	Needs can be met with clearinghouse services.
	2. Occ.Curr.Lab. (E.Texas Un)	
	3. Military Curriculum	
	4. Associated Builders & Cont.	
	5. Pennyslvania St. Dept.of Ed.	
Painting	1. Lane Community College	Needs can only be partially met with clearinghouse services.
	2. Associated Builders & Cont.	
	3. TPC Training Systems	
	4.	
	5.	
Carpentry	1. Associated Builders & Cont.	Needs can be met with clearinghouse services.
	2. Associated Gen. Cont. of Am.	
	3. CIMC (Oklahoma)	
	4. Lane Community College	
	5. California State Dept. of Ed.	

IV. CONCLUSIONS

1. Eighty percent of curriculum needs can be met with currently available materials.

2. Several options must be available for a single program need so that trainers can select materials appropriate to the conditions of their individual programs. Multiple options will allow trainers to tailor-make their programs for the setting.

3. Some trades areas have several curriculum options while others are extremely limited.

4. States should cooperate in planning their curriculum development so that gaps may be filled and overlaps prevented. Such cooperation is cost effective and increases availability of quality materials.

5. Many good curriculum materials exist in private corporations. These can be accessed once a functional clearinghouse is in place.

6. The number of public and private institutions, agencies and firms that develop, use or monitor curriculum is mind-boggling. It is easy to understand why much good curriculum is under-utilized.

V. RECOMMENDATIONS

1. It is recommended that project staff analyze through task inventory the curriculum needs of the following trade areas.

    1) Patternmaker
    2) Machine Repairer
    3) Painter

2. It is recommended that project staff summarize and synthesize the task inventory findings into recommended modules for curriculum development.

3. It is recommended that project staff, upon completion of the task inventory, conduct a further search of materials to determine if significant components of the training need might be met through existing curriculum materials.

4. It is recommended that project staff develop curriculum development process steps for producing the modules identified through task inventory.

5. It is recommended that the project director share the proposed lists of modules and developmental processes with state agencies involved with curriculum devlopment. This would serve to establish priorities for curriclum development that are based on field needs.

Pacific Crest Research and Services Corporation

5 June 1987

MEMORANDUM

TO: Carl Horstrup

FROM: Karen J. Starr

RE: A computerized database as part of the apprenticeship clearinghouse

From our conversation of May 26, it is my understanding that you are committed to the concept of a computerized database as part of the apprenticeship clearinghouse you are building at Lane Community College. The original concept of the database was one that would be developed on a mainframe computer at one of several locations. A number of factors contributed to making that approach impractical at this point in time.

The decision was made to build the database on an IBM AT or AT compatible microcomputer using BRS Search software as the database management system. This software is designed to manage bibliographic citations. It is backed by a well-established, reputable information vendor who has been in operation since 1977. By using the recommended operating system, the BRS software will allow online access from remote sites. Because the software will be mounted on a microcomputer that access will be limited as compared to what is possible on a mainframe computer. We will not know what the capabilities of the microcomputer will be for multi-user access until the database is up and operational. By using BRS Search as the database management software it will be relatively easy, by computer standards, to upgrade the database to a mainframe computer should that scenario become practical.

When acquiring a database management system programmed as a finished product, or turnkey system, to do what BRS Search can do, one pays a great deal of money up front. The alternative is to hire a systems analyst at $35.00 plus per hour to develop a database from scratch based on local standards. There are pluses and minuses for both perspectives. Certainly by purchasing a turnkey system like BRS Search, one avoids the initial developmental costs of building a system from the beginning. One also has access to BRS systems people on an on-call basis rather than supporting such people inhouse. Again there are pluses and minuses.

Even though BRS Search is a finished product, it will still need a system administrator. This individual will need a familiarity with microcomputers, an understanding of a multi-user operating system, and knowledge of database management systems. Understanding the bibliographic nature of information and the retrieval processes is an advantage. Building the database will also involve the efforts of an individual to input the information. This individual will need to learn the record structure well in addition to knowing how to use the database management system in order to keyboard information. That person must be able to adhere to high standards of quality control or the old axiom of garbage in, garbage out will occur. The individual does not need to know the system like a system administrator does but rather well enough to input the information. A third person required to maintain a quality database for your purposes is a subject specialist who can act as an editor/indexer/abstractor. This individual does not need to know how the computer operates...only how the information is stored and how the system retrieves it. If the information is not indexed effectively, it is in fact lost for retrieval purposes.

I have attached an ERIC record as an example of the kind of record that can be included in the apprenticeship database. I would recommend using the ERIC system as a standard for the development of your system with some modifications. I would like to refer you to the report I submitted to you on February 19, 1987, for a discussion of the fields that would be useful in the apprenticeship database.

How something is stored in the database will dictate how it is retrieved. The indexing process must take into consideration the needs of the user. The Clearinghouse must also make the user aware of the rules and guidelines followed during the indexing process. I have enclosed a copy of an article about indexing and retrieval in the ERIC system for your review. A couple of months ago, I recommended that you obtain a copy of the Thesaurus of ERIC Descriptors. I would also like to recommend that copies of the ERIC Processing Manual and the ERIC Abstractor/Indexer Workbook be obtained (see the highlighted parts of the article for location information). The standards in these resources need to be reviewed and adapted for clearinghouse purposes as part of the overall editorial policies to be established by the clearinghouse.

Development of a database involves more than just inputting information into a computer as you well know. Even the information downloaded from ERIC will need to be modified to fit your needs at the clearinghouse. I would like to propose several planning meetings to iron out some policies and guidelines so a year down the road you will have a well-thought-out product you can be proud of. Before those meetings occur it would be extremely useful to obtain the above recommended materials and to review them.

I hope this information and the material I turned over to you in February will give you a start in familiarizing yourself with some of the issues involved in developing the proposed database. If you have any questions, please feel free to let me know. I can be reached at 754-2249 or 754-8593.

cc: Fancher, Courtney✓

EVALUATION REPORT
(PHASE I)

A MODEL SYSTEM FOR THE DESIGN AND MAINTENANCE OF RELATED INSTRUCTION CURRICULA FOR APPROVED U. S. DEPARTMENT OF LABOR APPRENTICESHIP PROGRAMS

CARL HORSTRUP, PROJECT DIRECTOR
LANE COMMUNITY COLLEGE
4000 EAST 30TH STREET
EUGENE, OREGON 97405

SUBMITTED BY
E. WAYNE COURTNEY, THIRD PARTY EVALUATOR
3220 N.W. ARROWOOD CIRCLE
CORVALLIS, OREGON 97330
(503) 758-7325

OCTOBER 5, 1987

INTRODUCTION

THIS EVALUATION REPORT COVERS PHASE I OF THE PROJECT 'A MODEL SYSTEM FOR THE DESIGN AND MAINTENANCE OF RELATED INSTRUCTION CURRICULA FOR APPROVED U.S. DEPARTMENT OF LABOR APPRENTICESHIP PROGRAMS'. THE PROJECT, FUNDED BY THE U.S. DEPARTMENT OF EDUCATION, COMPLETED ITS INITIAL PHASE ON JUNE 30, 1987. THE DURATION OF THE PROJECT EXTENDS TO JUNE 30, 1989 FOR THE MULTI-YEAR GRANT. THE PHASE II FUNDING OF THE PROJECT HAS BEEN APPROVED FOR 1987-88. THE PROJECT FALLS WITHIN THE SCOPE OF THE FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION. THE PROJECT DIRECTOR IS CARL HORSTRUP, APPRENTICESHIP COORDINATOR, LANE COMMUNITY COLLEGE, EUGENE, OREGON. FIRST YEAR FUNDING TOTALLED $151,123.

THE PROJECT'S PRIMARY OBJECTIVE IS TO ESTABLISH A NATIONAL CLEARINGHOUSE FOR APPRENTICESHIP RELATED INSTRUCTIONAL MATERIALS. THE SCOPE OF THE PROJECT COVERS THE DEVELOPMENT OF A COMPUTERIZED DATABASE FOR ACCESSING INSTRUCTIONAL MATERIALS IN THE APPRENTICESHIP AREA. THE INTENT IS TO MAKE PRINTED MATERIALS AVAILABLE VIA COMPUTER BASED HARDWARE AS WELL AS TO PROVIDE USERS WITH HARDCOPY. THE PROJECT'S GOAL IS TO SEARCH OUT RELEVANT MATERIALS FROM SOURCES IN THE UNITED STATES AND CANADA, ASSESS THE WORTH OF THESE COLLECTED MATERIALS, AND TO PREPARE A MODEL FOR ACCESS AND USE BY THOSE WHO HAVE NEED FOR APPRENTICESHIP MATERIALS FOR INSTRUCTION. THE FIRST PHASE INCLUDED THE DEVELOPMENT OF THE MODEL, MATERIALS COLLECTION, AND THE FIELD TESTING OF THE MODEL.

THE THIRD PARTY EVALUATOR'S ROLE DURING THE FIRST PHASE WAS TO EVALUATE THE PROCESSES, PRODUCTS, AND IMPACT OF THE PROJECT IN THE FULFILLMENT OF ITS OBJECTIVES DURING THE TIMEFRAME COVERED BY THE PHASE. THIS REPORT SUMMARIZES THE RESULTS OF THREE PREVIOUSLY SUBMITTED EVALUATION UPDATES FOR THE PROJECT (DATED NOVEMBER 1, 1986; FEBRUARY 16, 1987; JUNE 18, 1987). THE REPORT UTILIZES EVALUATION INSTRUMENTS WHICH WERE DEEMED TO BE ACCEPTABLE BY THE PROJECT DIRECTOR, THE PROJECT COORDINATOR, AND THE PROJECT ADVISORY COMMITTEE.

THE MANAGEMENT PLAN

The Phase I (Development) plan for the apprenticeship clearinghouse project encompassed four major goals along with supporting objectives. These included the following:

Goal 1.0 Assess availability and need for apprenticeship related instructional materials.

Objective 1.1 Identify instructional materials.
Objective 1.2 Develop a printed directory of materials, their sources, and access.
Objective 1.3 Conduct a descriptive analysis on the gap between available and needed materials.

Goal 2.0 Design instructional materials.

Objective 2.1 Identify need areas for future curriculum development.
Objective 2.2 Recommend processes for instructional materials development.

Goal 3.0 Provide easy access to instructional materials.

Objective 3.1 Establish a computerized database.
Objective 3.2 Establish a library of printed materials.

Goal 4.0 Conduct field tests on products and processes.

Objective 4.1 Conduct field test on clearinghouse services.
Objective 4.2 Analyze results of field testing.

Seventeen (17) benchmark questions served as the basis for the Phase I evaluation. The benchmark questions provided qualitative reactions to the various goals and objectives. The benchmark questions are listed below.

EVALUATIONS OF BENCHMARK QUESTIONS

QUESTION 1. DID THE ADVISORY COMMITTEE FUNCTION IN AN EFFECTIVE WAY AND MAKE A REAL CONTRIBUTION?

THE PROJECT'S ADVISORY COMMITTEE, CONSISTING OF NINE (9) MEMBERS WHO REPRESENT VARIOUS APPRENTICESHIP INTERESTS, HELD TWO MEETINGS DURING THE PHASE I PERIOD. THEIR INPUT WAS INVALUABLE TO THE PROJECT'S SUCCESS. (SEE APPENDIX FOR A LISTING OF THE ADVISORY COMMITTEE MEMBERS.)

QUESTION 2. WERE THE COMPUTERIZED SEARCHES OF NATIONAL DATABASES CONDUCTED EFFICIENTLY?

THE APPLIED TRADE OCCUPATIONS WHICH HAVE BEEN RECOGNIZED AS APPRENTICESHIP IN CHARACTER BY THE BUREAU OF APPRENTICESHIP AND TRAINING HAVE BEEN FITTED INTO CLUSTER AREAS. THESE AREAS WERE USED AS THE BASIS FOR ORGANIZING MATERIALS FOR THE PROJECT.

QUESTION 3. WERE THE APPRENTICESHIP INSTITUTIONS CONTACTED ACCORDING TO THE PROPOSAL SCHEDULE?

MATERIALS INFORMATION REQUEST LETTERS WERE MAILED TO PROSPECTIVE INSTITUTIONS THROUGHOUT THE UNITED STATES AND CANADA. PRIVATE SOURCES WERE ALSO CONTACTED. THE RESPONSE WAS VERY HIGH FROM BOTH GROUPS. IN ADDITION, THE PROJECT ANNOUNCEMENTS MADE IN THE OCTOBER AND FEBRUARY ISSUES OF THE USAA SENTINEL, THE U.S. APPRENTICESHIP ASSOCIATION'S OFFICIAL NEWSLETTER, BROUGHT NATIONAL VISIBILITY TO THE PROJECT'S GOALS.

QUESTION 4. WERE THE FINDINGS OF THE SEARCHES AND INSTITUTIONAL CONTACTS SUMMARIZED IN A SATISFACTORY MANNER?

BOTH PUBLIC AND PRIVATE SOURCES HAVE BEEN UTILIZED IN THE SEARCHES FOR INSTRUCTIONAL REFERENCES AND HARDCOPY MATERIALS RELATED TO APPRENTICESHIP TRAINING PROGRAMS.

QUESTION 5. WAS A PRINTED DIRECTORY OF APPRENTICESHIP MATERIALS DEVELOPED TO INCLUDE THEIR SOURCES AND ACCESSIBILITIES?

THE NECESSARY REFERENCING AND SOURCE BIBLIOGRAPHIES WERE COMPILED TO COVER THE PRINTED DIRECTORY REQUIREMENTS. THE DIRECTORY WAS FIELD TESTED AT SIX (6) SITES LOCATED AT REPRESENTATIVE LOCATIONS THROUGHOUT THE UNITED STATES AND CANADA.

QUESTION 6. WAS A DESCRIPTIVE ANALYSIS COMPLETED WHICH DETAILED THE GAPS BETWEEN AVAILABLE AND NEEDED INSTRUCTIONAL MATERIALS?

THIS BENCHMARK WAS COMPLETED DURING LATE SPRING, 1987.

QUESTION 7. WERE FINDINGS DESCRIBING AVAILABLE MATERIALS AND NEEDED RESOURCES DISSEMINATED TO THOSE INSTITUTIONS PARTICIPATING IN THE PROJECT?

FIELD TEST COPIES OF THESE MATERIALS WERE DISSEMINATED TO SELECTED INSTITUTIONS DURING THE SUMMER OF 1987.

QUESTION 8. WERE TASK INVENTORY CHECKLISTS IDENTIFIED FOR EACH AREA AND RESPONDED TO BY LOCAL TRADE COUNCILS?

LOCAL TRADE COUNCILS FOR EACH APPRENTICESHIP AREA HAVE BEEN CONTACTED. THIS ITEM WILL BE COMPLETED DURING THE EARLY STAGES OF PHASE II.

Question 9. Were lists of specific modules recommended for future curriculum development?

Lists of specific modules will result from the task analysis checklist results and will be completed during the early stages of Phase II.

Question 10. Was a simplified process recommended for developing new apprenticeship instructional materials?
Question 11. Was a procedure identified for updating old instructional materials?

These activities were defined during May-June, 1987.

Question 12. Was a oomputerized database for apprenticeship materials established?

BRS Search technology software has been secured for use as the database management system for the Project.

Question 13. Were database considerations made for modem searches, coding, directory development, and updating and expansion.?

The ERIC format, with some modifications, has been recommended as the coding standard for the Project. Abstractor/Indexes Workbook and the Thesaurus or ERIC Descriptors resources is recommended for use with the database management system. BRS will be utilized as the retrieval system for the project.

Question 14. Were provisions made to establish a library of printed materials?

A library of printed materials has been developed and is in place on the Lane Community College campus.

Question 15. Were printed 'on-order' copies of materials provided to cooperating institutions?

Ordering information and other dissemination guidelines have been disseminated to the six (6) field test sites. These will be further implemented following the completion of the DIRECTORY evaluation.

Question 16. Were field tests adequately utilized for assessing the products and processes?

The field testing of the DIRECTORY was conducted during the summer and early fall of 1987. The final results of the evaluation have not yet cleared the Project Director's office. To date, two (2) sites have submitted completed evaluation forms (see Appendix). It is anticipated that the evaluations for all sites will be completed during late October, 1987. The six (5) site locations were at Wahpeton (North Dakota), Chattanooga (Tennessee), Burnaby (British Columbia), Madison (Wisconsin), Carson City (Nevada), and Honolulu (Hawaii).

Question 17. Were timelines met according to the project proposal plan?

Most sections of the project plan for Phase I were completed on schedule.

SUMMARY REMARKS

THE PROJECT'S PRIMARY OBJECTIVE OF ESTABLISHING A NATIONAL CLEARINGHOUSE FOR APPRENTICESHIP RELATED INSTRUCTIONAL MATERIALS IS WELL UNDERWAY. THE STRENGTHS OF THE FIRST PHASE OF THE PROJECT REVOLVE AROUND THE EFFECTIVE USE OF AN ADVISORY COMMITTEE, SEARCHES OF NATIONAL DATABASES, THE DEVELOPMENT AND FIELD TESTING OF A DIRECTORY, AND DECISIONS CONCERNING THE COMPUTERIZED DATABASE FOR CLEARINGHOUSE USE. CRITICAL TO THE PROJECT'S SUCCESS AND CONTINUATION IS THE ESTABLISHMENT OF THE COMPUTERIZED SYSTEM FOR ACCESSING INSTRUCTIONAL MATERIALS FOR USERS AND THE FIELD TESTING OF PRODUCTS AND PROCESSES TO BE UTILIZED WITHIN THE CLEARINGHOUSE OPERATION. MOST OF THE PLANNED GOALS AND THEIR ACCOMPANYING ACTIVITIES ARE ON SCHEDULE ACCORDING TO THE TIMETABLE WHICH WAS SET FORTH IN THE PROJECT PROPOSAL.

APPENDIX

ADVISORY COMMITTEE MEMBERSHIP

USER GUIDE COMMENT FORM

8

ADVISORY COMMITTEE MEMBERSHIP
Apprenticeship Clearinghouse Project

Sherril Wells, Associate Dean of Instruction
Umpqua Community College
P.O. Box 967, Roseburg, OR 97470-0226

Wes Swanger, BAC #6 Oregon
P.O. Box 7733, Eugene, OR 97401

Jeff Triplett, Deputy Administrator
OBLI
1400 S.W. 5th Street, Portland, OR 97201

Carol Stone, Director
Hot Foods
3520 S.E. Yamhill, Portland, OR 97214

Mike Murphy, Business Manager
IBEW 280
P.O. Box 3138, Salem, OR 97302

Cleveland Randle, Senior Program Advisor
U.S. Department of Education
Reporter's Building Room 610
7th and 'D' S.W., Washington, D.C. 20202

Charles Ganter
c/o Freightliner
5400 N. Basin, Portland, OR 97217

Ralph Little, Specialist
Oregon Department of Education
700 Pringle Parkway S.E., Salem, OR 97310

Carl Sorenson, USDL State Supervisor
FOB 1220 S.W. 3rd Ave, Room 528, Portland, OR 97204

USER DIRECTORY EVALUATION

We welcome your evaluation of the NATIONAL APPRENTICESHIP CLEARINGHOUSE DIRECTORY which was forwarded to your organization during the last month. Your comments and suggestions will greatly assist the efforts of the Apprenticeship Clearinghouse staff to improve the utility and practicality of the DIRECTORY. Please feel free to use additional pages if necessary.

Please circle the following which best represents your evaluation of the GUIDE.

	WEAK			STRONG
Organization of the DIRECTORY	1	2	3	4
Completeness of the instructions	1	2	3	4
Technical accuracy of the content	1	2	3	4
Clarity of the included content	1	2	3	4
General utility of the DIRECTORY for field use	1	2	3	4

If you answered any of the above items to the weak side of the scale or have other comments or concerns about the use of the DIRECTORY, please explain or suggest improvements below. Please note the section and page number(s) of the DIRECTORY where problems or concerns are located.

COMMENTS: ____

____

____

____

FROM:

____

NAME INSTITUTION OR ORGANIZATION

Are you a: User______ Supervisor of Users______ ?
(please check one)

ADDENDUM EVALUATION UPDATE

A MODEL SYSTEM FOR THE DESIGN AND MAINTENANCE OF RELATED INSTRUCTION CURRICULUM FOR APPROVED U. S. DEPARTMENT OF LABOR APPRENTICESHIP OCCUPATIONS

Carl Horstrup, Project Director
Lane Community College
4000 East 30th Street
Eugene, Oregon 97405

Submitted by
E. Wayne Courtney, Third Party Evaluator
3220 N. W. Arrowood Circle
Corvallis, Oregon 97330
(503) 758-7325

November 24, 1987

BEST COPY AVAILABLE

INTRODUCTION

This report is an addendum to the Phase I Evaluation paper dated October 5, 1987 and includes an updating of those activities which were pending as of the end of the Phase I period of the Project. The initial phase of the three-year program included the development of the model, collection of relevant apprenticeship-related curriculum materials, and the testing of the model on six (6) site locations across the United States and Canada. The field testing of the DIRECTORY was completed during late October, 1987; site report results are included in this report.

The third party evaluator's role during this phase was to evaluate the processes utilized for the project and to substantiate the fulfillment of the objectives included in the Proposal Plan for the timeframe encompassed by Phase I. Previous evaluation updates from the evaluator included those dated November 1 (1986) and February 16, March 2, June 18, and October 5 (1987). These reports responded to seventeen (17) benchmark questions which constituted the basis for the Phase I activities. Only those selected questions and issues which were not completed at the time of the October 5th evaluation report are included in the present update.

EVALUATIONS OF SELECTED BENCHMARK QUESTIONS FOR PHASE I ACTIVITIES

QUESTION 3. WERE THE APPRENTICESHIP INSTITUTIONS CONTACTED ACCORDING TO THE PROPOSAL SCHEDULE?

PUBLICITY HAS BEEN WIDESPREAD REGARDING THE ACTIVITIES OF THE CLEARINGHOUSE PROJECT, WITH AMPLE VISIBILITY BEING MADE FOR INPUT FROM PUBLIC AND PRIVATE SOURCES. IN ADDITION TO ANNOUNCEMENTS IN PAST ISSUES OF THE USAA SENTINEL AND HUNDREDS OF PERSONAL CORRESPONDENCES TO INTERESTED AGENCIES BY THE PROJECT DIRECTOR AND HIS MANAGEMENT TEAM, MR. HORSTRUP HAS COMPLETED PERSONAL SPEAKING APPEARANCES AT THE NOVEMBER 13, 1987 SEMINAR ON COLLEGES AND APPRENTICESHIP PROGRAMS COOPERATION AT CUYAHOGA COMMUNITY COLLEGE (PARMA, OHIO) AND PARTICIPATED IN THE NOVEMBER 20, 1987 MIDWEST REGIONAL APPRENTICESHIP AND TRAINING CONFERENCE IN CHICAGO, ILLINOIS (SEE ATTACHED). CONSERVA (NORTH CAROLINA) WAS INSTRUMENTAL IN PUBLICIZING AND COOPERATING WITH EDUCATIONAL AGENCIES FOR CLEARINGHOUSE PROJECT EXPOSURE AT BOTH OF THESE CONFERENCES.

QUESTION 8. WERE TASK INVENTORY CHECKLISTS IDENTIFIED FOR EACH AREA AND RESPONDED TO BY LOCAL TRADE COUNCILS?

LOCAL TRADE COUNCILS WILL RESPOND TO THE REMAINING INVENTORY CHECKLISTS AS SOON AS THOSE ITEMS UNDER QUESTION 9 ARE RELEASED. THESE RELEASES HAVE BEEN DELAYED BECAUSE OF THE DIFFICULTY IN LOCATING AND/OR DEVELOPING THE MODULE ON PATTERNMAKER.

QUESTION 9. WERE LISTS OF SPECIFIC MODULES RECOMMENDED FOR FUTURE CURRICULUM DEVELOPMENT?

THREE ADDITIONAL MODULES HAVE BEEN RECOMMENDED FOR FUTURE CURRICULUM DEVELOPMENT. THESE INCLUDE PATTERNMAKER, MACHINE REPAIR, AND PAINTER. ALL EXCEPT PATTERNMAKER HAVE BEEN COMPLETED. A SERIES OF TITLES UNDER EACH MODULE IS FORTHCOMING IN THE VERY NEAR FUTURE.

QUESTION 10. WAS A SIMPLIFIED PROCESS RECOMMENDED FOR DEVELOPING NEW APPRENTICESHIP INSTRUCTIONAL MATERIALS?
QUESTION 11. WAS A PROCEDURE IDENTIFIED FOR UPDATING OLD INSTRUCTIONAL MATERIALS?

A SYSTEMATIC APPROACH TO NEEDS ASSESSMENT, INSTRUCTIONAL ANALYSIS, CURRICULUM DEVELOPMENT, AND CURRICULUM UPDATING HAS BEEN WRITTEN FOR THE PROJECT IN AN INFORMATIONAL GUIDE TITLED 'PROCESSES FOR DEVELOPING AND UPDATING APPRENTICESHIP RELATED TRAINING CURRICULUM" (SEE ATTACHED).

Question 12. Was a computerized database for apprenticeship materials established?

BRS Search technology software and appropriate hardware have been purchased and programmed for use as the database for the Project.

Question 16. Were field tests adequately utilized for assessing the products and processes?

A USER GUIDE COMMENT FORM (see attached) was utilized to evaluate the field testing of the materials for the Project. The six (6) test site locations were at Wahpeton (North Dakota), Chattanooga (Tennessee), Burnaby (British Columbia), Madison (Wisconsin), Carson City (Nevada), and Honolulu (Hawaii). The results of the evaluation for three site reports conclude that, except for minor changes in the Guide's format, the materials favor the strong end of the evaluation scale. Reports from Hawaii, Wisconsin, and Tennessee are attached.

Question 17. Were timelines met according to the project proposal plan?

Except for the problem which has caused delays with the module covering Patternmaker, all sections and objectives for Phase I have now been completed.

APPENDIX

LETTERS AND PROGRAMS
- CUYAHOGA COMMUNITY COLLEGE
- ILLINOIS OCCUPATIONAL INFORMATION COORDINATING COMMITTEE

NEEDS ASSESSMENT REPORT

PROCESSES FOR DEVELOPING AND UPDATING

FIELD TEST SITE LETTERS AND REACTIONS

Cuyahoga Community College

Brownell West
1300 Sumner Court
Cleveland, Ohio 44115
216/348-8470

November 3, 1987

Mr. Carl Horstrup
Apprenticeship Coordinator
Lane Community College
4000 East 30th Avenue
Eugene, Oregon, 97405

Dear Mr. Horstrup;

Following up to our telephone conversation last week, I am happy to confirm our agreement and invite you to be the luncheon speaker at our November 13, 1987 seminar on Colleges and Apprenticeship Programs Cooperation in Ohio. Your Apprenticeship Training Materials Clearinghouse Project is a very intriguing initiative that has very likely given you an insight on Apprenticeship Programs from a national perspective. We will appreciate your sharing such views with our seminar participants along with your perceptions of opportunities, problems, etc. for colleges involved with Apprenticeship Programs.

Enclosed is a preliminary seminar agenda and directions. Please let me know your flight schedule so we can do your overnight reservations. (United flight leaves Eugene on Thursday, November 12 at 6:30 a.m., arrival in Cleveland at 3:01 p.m. and leaves Cleveland Friday, November 13 at 5:35 p.m., arrival in Eugene at 10:45 p.m.)

As we agreed, the College will be able to refund the round-trip flight cost, (United Airlines cost is $610.00) Given the short time available I am unable to generate a check on time for your flight, since we need to have a contract signed by you while visiting with us, unless I can mail it to you sooner.

I am very much looking forward to our meeting and your contribution to our seminar.

Sincerely,

Vladimir J. Rus

Enclosures

VJR/cd

Cuyahoga Community College is an Affirmative Action/Equal Opportunity Institution.

STATEWIDE SEMINAR
ON
APPRENTICESHIP AND PUBLIC EDUCATION COOPERATION

Friday, November 13, 1987, 8:00 a.m. - 4:00 p.m.
CUYAHOGA COMMUNITY COLLEGE-WESTERN CAMPUS
Cleveland, Ohio

8:00 TO 8:45 a.m.	Breakfast and Welcome - Galleria (Rm 229) Ronald Sobel, V.P. Provost, Western Campus Dr. Nolen M. Ellison, President, Cuyahoga Community College
9:00 TO 9:45 a.m.	General Meeting - Galleria (4A) Introduction - Dan Marschall, Ohio Building and Construction Trades Training Foundation Survey of Ohio Colleges - Brian Sharkin, CCC Cleveland Apprenticeship Programs Self-Study - V.J. Rus, CCC
9:45 TO 11:00 a.m.	Panel A - Current Status MODERATOR - Dr. Joseph Davis, Ohio Council of Vocational Education Leon Alfred, Stark Technical College James Beshalske, Toledo PIC Dr. Daniel Brown, President, Owens Technical College Dale Hershey, Upper Valley Joint Vocational School Eric Magnuson, Terra Technical College Vernon Neiss, Stark Technical College Vladimir Rus, Cuyahoga Community College Fred Suser, Penta County Vocational School
11:00 TO 11:15 a.m.	Coffee Break
11:15 TO 12 noon	Panel B - State Level Response MODERATOR - Anthony Swoope, Bureau of Apprenticeship and Training, U.S., Department of Labor Dr. Roy Butler, National Center for Research in Vocational Education Robert Farrington, Ohio Building & Construction Trades Council Dr. Darrell Parks, Ohio Board of Education Theresa Powell, Ohio Board of Regents
12:00 TO 12:30	Discussion

12:30 TO 1:45 p.m.	Luncheon - Galleria (Rm 229) Speaker, Carl Horstrup, Apprenticeship Training Materials Clearinghouse, Lane Community College, Eugene, Oregon
2:00 TO 3:00 p.m.	Panel C - Labor Response - Galleria (Rm 4A) MODERATOR - Charles Pinzone, Cleveland Building and Construction Trades Council Richard Acton, Business Manager Local 38, Board of Trustees, Cuyahoga Community College Robert Farrington, Ohio Building & Construction Trades Council Norm Ladd, Northwestern Ohio Building & Construction Trades Council Dr. Michael J. Murphy, Executive Director, United Labor Agency William Sharkin, I.B.E.W. JATC
3:00. TO 4:00 p.m.	General Discussion and Conclusions MODERATOR - V.J. Rus
4:00 p.m.	Adjournment

STATEWIDE SEMINAR ON APPRENTICESHIP AND PUBLIC EDUCATION COOPERATION

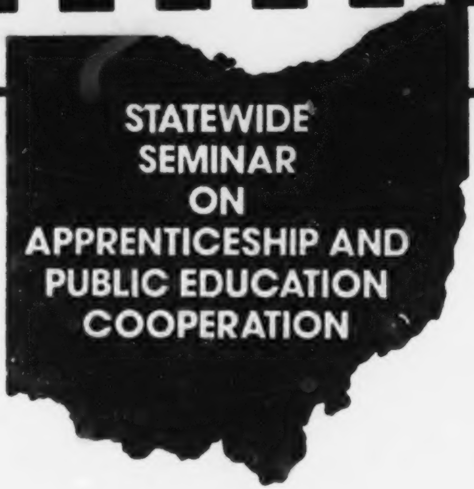
Friday, Nov. 13, 1987
8:00 a.m.-4:00 p.m.
CUYAHOGA COMMUNITY COLLEGE
WESTERN CAMPUS
Parma, Ohio

Jointly sponsored by
Cuyahoga Community College and the
Ohio Building and Construction Trades
Training Foundation

Cuyahoga Community College

BEST COPY AVAILABLE

Cuyahoga Community College



STATEWIDE SEMINAR ON APPRENTICESHIP AND PUBLIC EDUCATION COOPERATION

8:00-8:45 a.m.	**BREAKFAST AND WELCOME** Galleria **Ronald Sobel,** Provost, Western Campus **Dr. Nolen M. Ellison,** President, Cuyahoga Community College
9:00-9:45 a.m.	**GENERAL MEETING** Galleria, A 4 & 5 Introduction: **Dan Marschall,** Ohio Building and Construction Trades Training Foundation Survey of Ohio Colleges: **Brian Sharkin,** CCC Cleveland Apprenticeship Programs Self-Study: **Vladimir J. Rus,** Cuyahoga Community College
9:45-11:00 a.m.	**PANEL A — CURRENT STATUS** MODERATOR: **Dr. Joseph Davis,** Ohio Council of Vocational Education **James Beshalske,** Toledo PIC **Dr. Daniel Brown,** President Owens Technical College **Dale Hershey,** Upper Valley Joint Vocational School **Eric Magnuson,** Terra Technical College **Vernon Neiss,** Stark Technical College **Vladimir Rus,** Cuyahoga Community College **Fred Suser,** Penta County Vocational School
11:00-11:15 a.m.	**COFFEE BREAK**
11:15-Noon	**PANEL B — STATE LEVEL RESPONSE** MODERATOR: **Anthony Swoope,** Bureau of Apprenticeship and Training, U.S. Department of Labor **Dr. Roy Butler,** National Center for Research in Vocational Education **Robert Farrington,** Ohio Building & Construction Trades Council **Dr. Darrell Parks,** Ohio Department of Education **Theresa Powell,** Ohio Board of Regents
12:00-12:30	**DISCUSSION**
12:30-1:45 p.m.	**LUNCHEON** Galleria, Room 229 Speaker: **Carl Horstrup,** Apprenticeship Training Materials Clearinghouse, Lane Community College, Eugene, Oregon
2:00-3:00 p.m.	**PANEL C — LABOR RESPONSE** Galleria, A 4 & 5 MODERATOR: **Charles Pinzone,** Cleveland Building and Construction Trades Council **Richard Acton,** Business Manager Local 38, Board of Trustees, Cuyahoga Community College **Robert Farrington,** Ohio Building & Construction Trades Council **Norm Ladd,** Northwestern Ohio Building & Construction Trades Council **Dr. Michael J. Murphy,** Executive Director, United Labor Agency **William Sharkin,** I.B.E.W., JATC
3:00-4:00 p.m.	**GENERAL DISCUSSION AND CONCLUSIONS** MODERATOR: **Vladimir J. Rus**
4:00 p.m.	**ADJOURNMENT**

Illinois Occupational Information Coordinating Committee

217 East Monroe, Suite 203
Springfield, Illinois 62706
217/785-0789

Board of Governor's of State Colleges and Universities (represented by Eastern Illinois University)
Stanley Rives
President

Illinois Board of Higher Education
ichard Wagner
Executive Director

Illinois Community College Board
avid Pierce
Executive Director

Illinois Council on Vocational Education
eter Johnson
Executive Director

Illinois Department of Commerce and Community Affairs
ay Hedges
Director

Illinois Department of Employment Security
ally Ward
Director

Illinois Department of Labor
wen Martin
Director

Illinois Department of Rehabilitation Services
usan Suter
Director

Illinois Job Training Coordinating Council
Allen Andreas
Assistant Treasurer
rcher Daniels Midland Corporation

Illinois State Board of Education
Ted Sanders
State Superintendent of Education

enry Jackson, Chairman
an Staggs, Executive Director

October 19, 1987

Mr. Carl Horstrup
Coordinator, Apprenticeship & Special
Training Programs
Lane Community College
4000 East 30th Avenue
Eugene, Oregon 97405

Dear Mr. Horstrup:

The Illinois Occupational Information Coordinating Committee in cooperation with the Bureau of Apprenticeship and Training, the Office of Adult and Vocational Education, and the National Occupational Information Coordinating Committee, would like to invite you to speak on the topic of the Lane Community College Resource Center as it relates to apprenticeship and skill training information at the Midwest Regional Apprenticeship and Training Conference. The Conference theme is "Making Information Work for You to Improve Apprenticeship and Skill Training" and the purpose is to improve the use of apprenticeship and occupational information to foster cooperation and partnerships. Your part on the agenda is scheduled for 9:30 a.m. on November 20, 1987 at the Days Inn - Lake Shore, Chicago, Illinois.

The participants will be interested in hearing about the Lane Community College Resource Center as it relates to apprenticeship programs. A review of the apprenticeship resources that can be obtained through the Resource Center would be useful. It can be assumed that the knowledge of participants about resource programs will range from extensive to non-existent.

I hope you will have time in your busy schedule to be a speaker. A copy of the agenda is attached for your information. If you have any questions, please call me at 217/785-0789.

Sincerely,

Jan Staggs
Executive Director

JS/als

BEST COPY AVAILABLE

AGENDA

MIDWEST REGIONAL APPRENTICESHIP AND TRAINING CONFERENCE

November 18 - 20, 1987

Days Inn - Lake Shore
644 North Lake Shore Drive
Chicago, Illinois
312/943-9200

THEME: MAKING INFORMATION WORK FOR YOU TO IMPROVE APPRENTICESHIP AND SKILL TRAINING

PURPOSE: To improve the use of apprenticeship and occupational information/data to foster cooperation/partnerships.

SPONSORED BY: Bureau of Apprenticeship and Training
Office of Adult and Vocational Education
National Occupational Information Coordinating Committee
Illinois Occupational Information Coordinating Committee

WEDNESDAY
November 18

11:00 AM - 1:30 PM Registration

1:30 PM - 2:00 PM Introduction

Juliette Noone Lester, NOICC Executive Director
James VanErden, Bureau of Apprenticeship and Training Director
John Pucciano, Vocational Education

2:00 PM - 2:30 PM Keynote Address

Apprenticeship & Skill Training - Workforce 2000: Issues and Challenges

Kelley Andrews (Invited)

a. demographics
b. women/minorities - current & projected shares
c. changing occupational structure

2:30 PM - 3:30 PM Apprenticeship & Skill Training - Employment and Training Agency Perspectives

Bureau of Apprenticeship & Training

WHAT SESSION IS ABOUT AND RELATIONSHIP TO EACH OTHER

Vocational Education
Job Training Partnership Act
Job Service
NOICC/SOICC

3:30 PM - 3:45 PM BREAK

3:45 PM - 5:00 PM Labor Market Information Needs as They Relate to Apprenticeship and Skill Training Programs: An Interagency Perspective (Planning and Administration)

WHAT IS NEEDED?

Bureau of Apprenticeship & Training
State Apprenticeship Council
Vocational Education
Job Training Partnership Act
Job Service
NOICC/SOICC

6:00 PM - 8:00 PM SOCIAL HOUR

THURSDAY
November 19

8:30 AM - 10:00 AM Apprenticeship Information

WHAT IS AVAILABLE?

a. Bureau of Apprenticeship & Training System:
What it is / How to use it
Larry Miller Dick Swain
b. NOICC/Occupational Information Systems (OIS)
   1) characteristics as they relate to apprenticeship
   2) technical issues as they relate to OIS
      (a) supply /or demand
      (b) gaps on reporting
      (c) non-registered
      (d) double counts in reporting
      (e) pre-apprenticeship school linkages

10:00 AM - 10:30 AM Occupational Information Systems (OIS) as They Relate to Apprenticeship

PANEL: national / state / local

a. development
b. usage
c. technical issues

10:30 AM - 10:45 AM BREAK

10:45 AM - 12:00 Noon OIS Break-Out Session by State: State practices / Status / Possible Recommended Changes / Interagency Agreement

12:00 PM - 1:00 PM LUNCHEON (Provided)

1:00 PM - 1:30 PM Report on State OIS Issues

1:30 PM - 2:30 PM Career Information Delivery Systems (CIDS) as They Relate to Apprenticeship

PANEL: national / state / local

- a. development
- b. usage
- c. technical issues

2:30 PM - 2:45 PM BREAK

2:45 PM - 3:45 PM CIDS Break-Out Session by State:
State practices / Status / Possible Recommended Changes

3:45 PM - 4:30 PM Report on State CIDS Issues

4:30 PM - 6:30 PM EXHIBITS/DISPLAYS

6:30 PM - 9:00 PM BANQUET (Provided) - Guest Speaker

FRIDAY
November 20

9:00 AM - 9:30 AM Canadian Experience

9:30 AM - 10:30 AM Other Information Activities as They Relate to Apprenticeship Information

- a. Tabloids
- b. Apprenticeship Books
- c. How to Use Bureau of Apprenticeship & Training Data Tapes - Larry Miller
- d. Using I/O Matrices - Marketing/Planning
    - 1. Occupation
    - 2. Industry
    - 3. Firms
    - 4. Firms with Apprentices
- e. Educational Resource Systems
    - 1. ERIC
    - 2. Curriculum Centers - Rebecca Douglas
    - 3. Lane Community College Resource Center
- f. Other

10:30 AM - 10:45 AM BREAK

10:45 AM - 11:30 AM Break-Out Session by State:
Development of State Action Plans

11:30 AM Wrap-Up

NEEDS ASSESSMENT

for

APPRENTICESHIP RELATED TRAINING CURRICULUM CLEARINGHOUSE PROJECT

Carl Horstrup, Project Director
Lane Community College
4000 E. 30th Avenue
Eugene, Oregon 97405
Telephone: (503) 747-4501, ext. 2843

INTRODUCTION

Lane Community College received funding to develop a national clearinghouse for apprenticeship related training curriculum materials. One of the first steps in the project was to determine if a need for clearinghouse services did exist; the nature of that need; and whether the clearinghouse would be used, once developed.

The findings of the needs assessment will be utilized in a "gap" analysis to determine whether expressed needs are due to true curriculum shortages in some occupational areas or if it is merely a problem of users finding the proper resources. This project will provide recommendations for development of curriculum in the areas of shortages. The clearinghouse services will expedite user searches for appropriate curriculum materials through a print directory and an electronic database. Once the true needs are identified, the clearinghouse will be developed to meet those needs.

METHODOLOGY

An apprenticeship advisory council was organized to provide direction for the development of the clearinghouse. The advisory council identified several generic needs based on their extensive experience in planning, operating and supervising apprenticeship programs. Those generic needs were utilized as a starting point for a more comprehensive needs assessment.

A mailing list was developed for some 158 institutions and agencies with direct responsibility for apprenticeship related training in each of the 50 U.S. states and Canadian provinces. Each entity on the mailing list was contacted by a cover letter explaining the proposed project. Along with the cover letter, respondents received a quick-response instrument that was designed to determine:

1. if they are currently able to get good quality curriculum materials;
2. if they can acquire materials in a reasonable timeframe;
3. specific areas in which they experience problems in finding good materials;
4. types of materials that should be made available in the clearinghouse;
5. if they had materials to contribute to a clearinghouse; and
6. if they would use such a system if it became available.

In addition to the mail-outs, personal contacts were made by Carl Horstrup, Project Director, and Eric Rice, Eastern Field Coordinator for the project. Additional telephone contacts and consultations with the field added another dimension to the needs assessment and served to validate the mail responses.

The responses were summarized by project staff and utilized to develop this summary on the needs assessment. However, this is not considered as a final needs assessment for the project. The staff will continue to identify, assess and clarify the needs of the various states throughout the life of the project and beyond. Findings of the needs assessments will shape the nature of the clearinghouse services and the content of materials to be included in the database.

FINDINGS

A total of 34 states and one Canadian Province responded to the 158 letters mailed out to apprenticeship organizations, state departments of education and federal apprenticeship agencies. A breakdown of their responses are:

60% (21) of the respondents indicated a definite need for a system to find quality curriculum materials.

14% (5) of the resopndents indicated that they had ready access to quality curriculum materials. Four of the five in this category have materials dissemination centers and are willing to be contributors to the database.

26% (9) of the respondents did not indicate whether or not they had a need for additional curriculum resources but either wished to use the database or to be kept informed of the database's development.

Respondents were asked to identify specific curriculum areas of need. The following occupational programs were identified as specific need areas:

- Industrial Maintenance Electrician
- Instrument Repair
- Electrical Repairer
- Millwright
- Machine Repair
- Patternmaker
- Tool and Die Maker
- Machinist
- Sheet Metal
- Painting
- Carpentry (Residential and Commerical)

Respondents were asked to identify the types of materials that should be included in an apprenticeship related training curriculum clearinghouse. Two-thirds of those responding to that question indicated a need for trade specific curriculum. The remaining responses were divided between general apprenticeship information, materials on non-traditional occupations and curriculum to serve the low enrollment trades.

The specific items suggested by the respondents for inclusion in the clearinghouse are:

1. Course guides in each trade area that specify hours allocated to each course.

2. Teacher guides and manuals.

3. Apprentice guides, manuals and workbooks.

4. Task lists.

5. Competency tests.

6. CBVE training materials.

7. Individualized materials for low enrollment programs.

8. Correspondence study materials.

9. Textbooks and publishers.

CONCLUSIONS

Based on the repsonses to the mail survey, personal contacts and telephone conservations with the apprenticeship trianing agencies and institutions, several conclusions can be made.

1. A need exists for clearinghouse services that are targeted at the specific needs of apprenticeship training.

2. A need exists for a greater selection of materials so that trainers can match appropriate curriculum with their specific training programs.

3. A need exists for users to find appropriate curriculum materials more quickly.

4. A need exists for finding reasonably priced materials for apprenticeship training.

5. The major need is for job specific training materials even though general apprenticeship materials are needed by some groups.

6. Both instructor and student level materials are needed by apprenticeship training institutions.

7. Apprenticeship training institutions and agencies are definitely interested in sharing materials through a clearinghouse.

RECOMMENDATIONS

1. The LCC clearinghouse should maintain communications with those states and provinces that responded to the initial mail survey. Future communications should be directed at:

   a. further clarification of the specific needs in individual states and provinces;

   b. informing the respondents on the status of the clearinghouse;

   c. further identification of quality curriculum materials being used in their states and provinces; and

   d. developing a long-term relationship between the user/contributor and the clearinghouse.

2. The project should follow-up on those states and provinces that failed to respond to assure that all needs have been identified.

3. The project should match the findings of the needs assessment with curriculum availability to determine if the "gaps" are a result of the materials "not existing" or of the user "not being able to find" the sources of needed items.

PROCESSES

for

DEVELOPING AND UPDATING

APPRENTICESHIP RELATED TRAINING CURRICULUM

CARL HORSTRUP, PROJECT DIRECTOR

Apprenticeship Related Training Clearinghouse
Lane Community College
October 1987

I. INTRODUCTION

Curriculum development and updating is a time-consuming process. In order to develop quality curriculum in a cost-effective manner, the developmental processes must be well organized. A step-by-step procedure will reduce wasted effort and make curriculum development into a more exciting assignment.

The word processor is an essential tool for curriculum development and updating. Revisions can be made on materials quickly which allows periodic updating without retyping the entire document. A single diskette will hold lengthy curriculum documents and is easy to access. Updated materials can be retrieved in print format as needed in the instructional program.

A systematic approach to curriculum development is presented in this paper. This is an example only. Many other approaches will provide equally good results. However, it is suggested that developers have a planned, systematic approach before starting a curriculum development thrust.

II. NEEDS ASSESSMENT

Curriculum Searches

A curriculum developer should identify what is already available in a curriculum area. It is much cheaper to adopt and/or adapt existing curriculum than it is to develop new curriculum.

The Apprenticeship Related Training Materials Clearinghouse at Lane Community College has conducted searches on your behalf. The results of those searches have been organized into a printed directory of materials and sources by occupational areas. This directory should be reviewed to determine if appropriate materials are already available. Using the ERIC (ED) numbers, obtain microfiche of promising documents for review. Other materials can be ordered from public and private vendors. The Clearinghouse materials can be used as references or adapted for direct use in a program.

Most State Departments of Education and major universities offer services for conducting curriculum searches. Most searches cost $15 to $30 and can be completed in a short timeframe.

Management Interviews

If time permits, curriculum developers should spend some time in interviews with managers, supervisors and journeymen of the trades for which curriculum is being considered. An oral interview guide with key questions will enhance the interview process. Management interviews help identify the true priorities in related training curriculum. An example of an oral interview guide is shown in Appendix A.

Task Inventory

During the management interview, ask the manager if their journeymen can respond to a specific skills checklist. If permission is granted, two or more task inventory checklists are left along with mailback envelopes.

Task inventory checklists are available from many sources such as V-Techs, State Departments of Education and universities. Some lists are generic to a general occupational area (construction) and others are highly specific to a single occupation (carpenter). One must select a task inventory checklist that is best targeted to the curriuclum area.

Once the task checklists have been completed and returned, each item is tallied. Those items checked by 50% or more of participating firms should be earmarked for inclusion into the curriculum. See example task inventory in Appendix B.

Summarizing the Needs Assessment

Using summaries of management interviews and task inventories, identify specific concepts to be included in the curriculum. Reconcile what was heard from the managers with the task inventory results. Managers usually see trends and emerging skills beyond the journeymen's current performance. Likewise, the journeymen can identify those tasks needed for successful job performance.

Make final judgments on what is to be included in the curriculum by highlighting task statements on the tally checklist.

III. INSTRUCTIONAL ANALYSIS

Identifying Performance Objectives

The task statements can be grouped according to the way they should occur in the instructional program. Several task statements make up one performance objective.

EXAMPLE:

Objective 3.1	Identify, use and maintain hand tools.
Task 1	Identify, use and maintain measuring and marking tools.
Task 2	Identify, use and maintain fastening tools.
Task 3	Identify, use and maintain cutting tools.
Task 4	......., etc.

The performance objectives become the organizational framework for the curriculum. For example, all tool use might be categorized under three performance objectives.

3.1 Identify, use and maintain hand tools.

3.2 Identify, use and maintain power tools.

3.3 Identify, use and maintain precision measuring instruments.

Identifying Competencies

Competency statements reflect what the trainee will be able to do upon completion of the instructional program. Many of the task statements on the task inventory are appropriate for competency statements. Others may need to be revised to be strong competency statements. A competency statement:

1. begins with an action verb to denote that something will take place. i.e. use, construct, write, identify; and

2. is measureable.

The competency statements are organized under their respective performance objectives to give a complete outline of the curriculum to be developed. See example in Appendix C.

Conducting a Gap Analysis

Using the findings of the curriculum searches from the needs assessment, compare the available curriculum with the list of objectives and competencies. As part of this comparison, determine:

1. which competencies can be developed using existing curriculum resources; and

2. which competencies will require new curriculum.

The differences between "what exists" and "what is needed" is called a gap analysis. The "gap" becomes the focus of the curriculum development effort.

IV. CURRICULUM DEVELOPMENT

Module Title Page

Much of apprenticeship curriculum has been developed as instructional packages or individualized learning modules. An average module is 15-20 pages in length and is directed toward 2-4 competencies. The front page of a module shows the title of the module, number of module, performance objective and competencies to be developed. See example in Appendix D.

Study Guide and Resources

Each module has a study guide sheet that gives a simple explanation to the trainee on how to complete the module. References and resources for the module are listed at the bottom of the study guide. See example in Appendix E.

Vocabulary List

A list of new trade terms are listed immediately after the study guide. Trainees will acquaint themselves with the terms to be mastered in the module. The vocabulary list can include definitions of the terms or a straight listing with definitions to be acquired from the following information sheets. See Appendix F.

Information Sheets

The information sheets are the subject matter portion of the module. Quality modules offer information sheets with diagrams, illustrations and pictures to clarify the concepts. Information sheets should be clear, concise and written at a reading level that can be readily understood by the trainee. See Appendix G.

Job Sheets

Many modules include a "hands on" assignment related to the material in the information sheets. The job sheet reinforces the learning process through immediate application. See Appendix H.

Self-assessment

Each module has a self-assessment that allows trainees to test their own mastery of the competencies being developed in the module. An answer sheet is provided so that the trainees can score their own self-assessment results. See Appendix I-1.

A self-assessment is usually made up of ten short answer questions over the information sheets. True-false, multiple-choice and direct answer questions are common to modules. See Appendix I-2.

Module Exam

Each module contains an exam that is retained by the instructor. Once the trainee is confident of mastery of the module, the instructor will administer the module exam. A passing score allows the trainee to proceed to the next module. See Appendix J-1 and J-2.

Sequencing

The modules should be completed in a sequence that offers a building-block effect. Some modules are pre-requisites to other modules. Modules should be correlated with on-the-job training to add more meaning to the instruction. Sequencing should proceed from simple concepts to complex concepts with each module reinforcing past ones.

Time Allocations

Apprenticeship programs have specific timeframes for completion of training. The total instructional package must be delivered within a set timeframe. This necessitates that instruction be completed in a timely fashion with milestones for completion of a series of modules.

Once the total training package has been defined, each module should be given a time allocation. The total time for all modules must equal the time allocated for related instruction. Time must be considered in the beginning to avoid short-changing critical areas of the curriculum by running out of time.

V. CURRICULUM REVISION AND UPDATE

Curriculum Review

Curriculum becomes outdated because of lack of a systematic review process. All curriculum should be reviewed every five years and preferably more often. A timeline for review must be established and adhered to. Someone must be made responsible for keeping the curriculum up-to-date. Periodic reviews must be established on 1-3-5 year cycles.

An efficient way to review curriculum is to do it directly on the monitor of a word processor. The revisions can be made at the time of review. Curriculum must be keyboarded on computer diskettes if we expect to maintain updates on the material.

Advisory committees and/or other groups of industry people should read materials and make recommendations for change. The actual changes can be made more efficiently by one person at a computer. Suggested corrections may be made on print copies of curriculum and keyboarded by a secretary.

Revision and Update

Curriculum development is a dynamic process. Technological change will not allow it to become static. Updates can often be handled by adding new modules of instruction to address emerging technologies. Likewise, some packages should be eliminated as technologies become obsolete. In other cases, specific statements or paragraphs in a module may need revision to reflect current technology.

Revision and update requires logical, methodical treatment of curriculum materials. It needs to be thorough, but does not have to be time consuming. Revisions can be both time-efficient and cost-effective if properly organized.

SUMMARY OF CURRICULUM DEVELOPMENT AND REVISION PROCESSES

OBJECTIVE: 1.0 CONDUCT NEEDS ASSESSMENT

ACTIVITIES:
1.1 Conduct curriculum searches
1.2 Conduct management interviews
1.3 Complete task inventories
1.4 Summarize needs assessment

OBJECTIVE: 2.0 PERFORM INSTRUCTIONAL ANALYSIS

ACTIVITIES:
2.1 Identify performance objectives
2.2 Identify competencies
2.3 Conduct a gap analysis

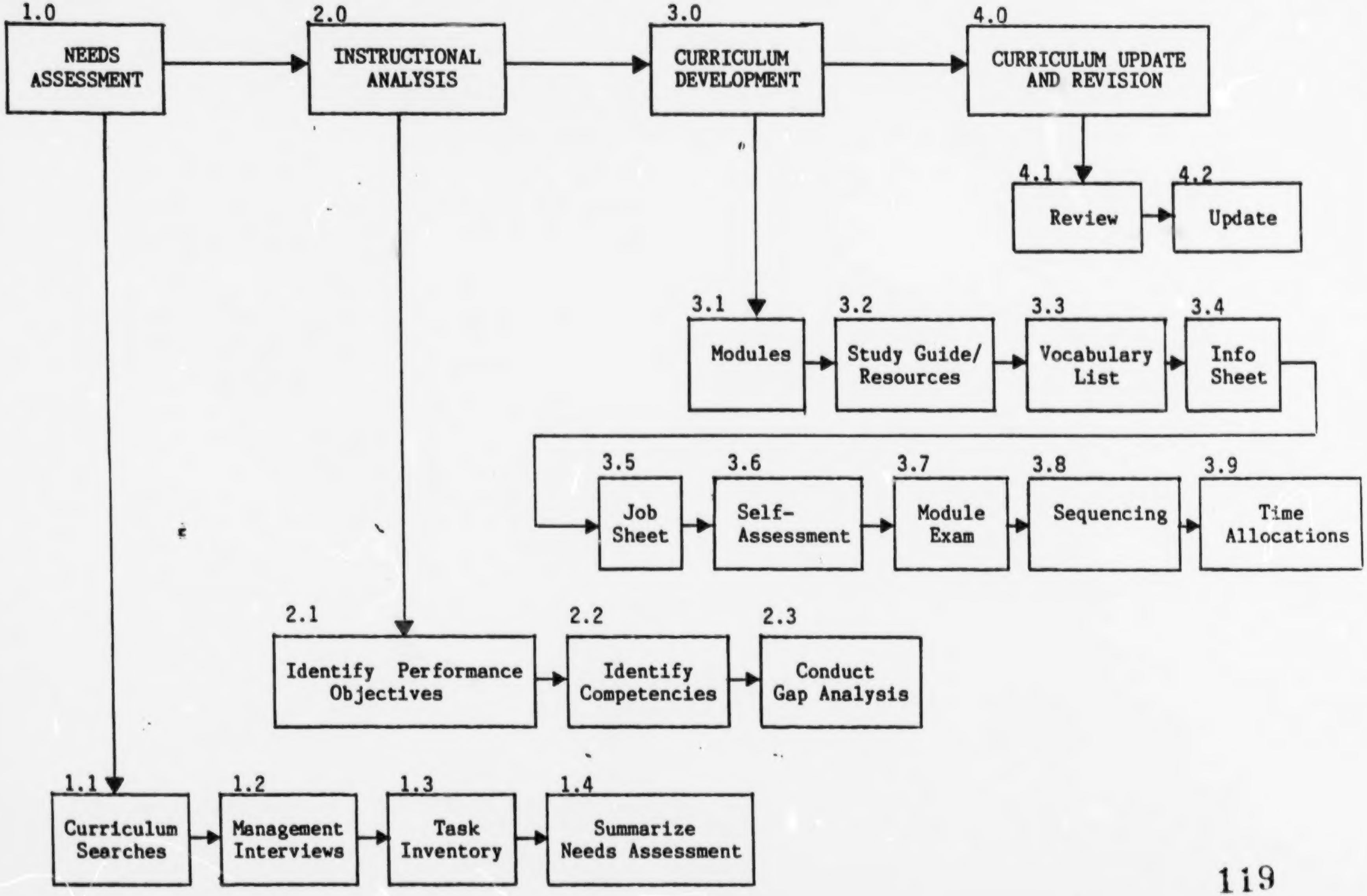
OBJECTIVE: 3.0 DEVELOP CURRICULUM

ACTIVITIES:
3.1 Develop title pages for modules
3.2 Develop study guide and resource listing for each module
3.3 Develop vocabulary list/terminology pages
3.4 Write information sheets
3.5 Write job sheets
3.6 Write self-assessments and self-assessment answer sheets
3.7 Write module exams and answer sheets
3.8 Sequence modules
3.9 Determine time allocations for each module

OBJECTIVE: 4.0 REVIEW AND UPDATE CURRICULUM

ACTIVITIES:
4.1 Review curriculum periodically
4.2 Update curriculum to reflect technology changes

FLOWCHART OF PROCESSES FOR CURRICULUM DEVELOPMENT AND REVISION



EXAMPLE

MANAGEMENT INTERVIEW GUIDE FOR CURRICULUM DEVELOPMENT

1. How many employees do you employ in each of the following job categories?

   a. Carpenter

   b. Bricklayers

   c. Cement Mason

   d. Floor Layer

2. Where did current employees receive their preparation training for this job?

3. Do you have an in-house training program for apprenticeship and/or job advancement? Describe.

4. Which curriculum materials are used in delivery of the training program?

5. At what reading levels should apprenticeship training materials be developed?

6. In addition to technical concepts, related training curriculum often includes units in communications, trade math and human relations. How much should these areas be emphasized in a curriculum?

7. Do your employees have difficulty in reading manuals, blueprints, work orders and other job related materials?

8. Which personality traits (employability skills) are most important for successful employment in your firm? i.e. getting to work on time, getting along with others, honesty, loyalty.

9. Does your "crystal ball" forsee new and emerging technologies that should be included in a curriculum?

10. Will you allow two of your employees to respond to a specific task inventory checklist in relation to work performed in your firm?

IF MANAGERS RESPOND POSITIVELY TO QUESTION 10, LEAVE THE CHECKLISTS AND MAILBACK INSTRUCTIONS, INCLUDING SELF-ADDRESSED, STAMPED ENVELOPE.

Name ______________________________ Number ____

CONSTRUCTION

TASK INVENTORY

Listed below are the duties and tasks that are commonly performed in the construction trades. Please check those tasks that are needed in the performance of your job. Add any tasks which may be missing from this inventory. Blank spaces are provided for write-ins.

	Check	Comments
A. PRACTICE ACCIDENT AND SAFETY PREVENTION		
1. Protective clothing and equipment		
2. Lifting and carrying		
3. Electric power tools		
4. Pneumatic tools and equipment		
5. Ladders		
6. Scaffolds		
7. Eye protection		
8. Fumes, dusts and gases		
9. Materials handling		
10. First aid training		
11.		

APPENDIX C

EXAMPLE FORMAT FOR DEFINING TRAINING PROGRAM IN TERMS OF OBJECTIVES AND COMPETENCIES

Objective 1.0 Use computer terminology.

Competencies:
- 1.1 Use common computer terms.
- 1.2 Use common acronyms.

Objective 2.0 Describe digital language.

Competencies:
- 2.1 Identify numbers in decimal, binary, octal and hexidecimal systems.
- 2.2 Convert to decimal numbers.
- 2.3 Convert to binary and hexidecimal numbers.
- 2.4 Convert to binary and octal numbers.

Objective 3.0 Describe digital logic and gating systems.

Competencies:
- 3.1 Describe analog.
- 3.2 Describe digital.
- 3.3 Identify digital logic families.
- 3.4 Describe logic gates.

Objective 4.0 ....

Competencies:
- 4.1 ....
- 4.2 ....
- 4.3 ....

Objective 5.0 ....

DEVELOP OBJECTIVES AND COMPETENCIES TO COVER ALL ELEMENTS OF THE DESIRED TRAINING PROGRAM.

APPENDIX D

HYDRAULIC PRESS

COIL FEEDER

OBJECTIVE:

The trainee will be able to describe the coil feeder and its operational procedures.

COMPETENCIES:

1. Identify parts of a coil feeder.
2. Describe function of feeder parts.
3. Select proper controls for feeder setup.
4. Determine feed length.
5. Adjust stock guides.
6. Load stock.
7. Operate stock lubricator.

ASSIGNMENT

- * Read the list of technical terms. These terms will be used in the information sheets. New terminology will be underlined and explained. Make sure that you understand all terms in the list before you leave this unit of instruction.
- * Look at the reference list at the bottom of this page. If this package does not provide you with all of the information you need, ask your instructor for the reference.
- * Study the information pages carefully. The major ideas to be learned are in the information pages.
- * Complete the self-assessment and check your answer with the answer sheet.
- * When you understand the material in the module, ask your instructor for the module exam. The instructor will check your answers and record that you have completed the unit. (The module exam is an option that may or may not be required by the instructor.)

REFERENCES

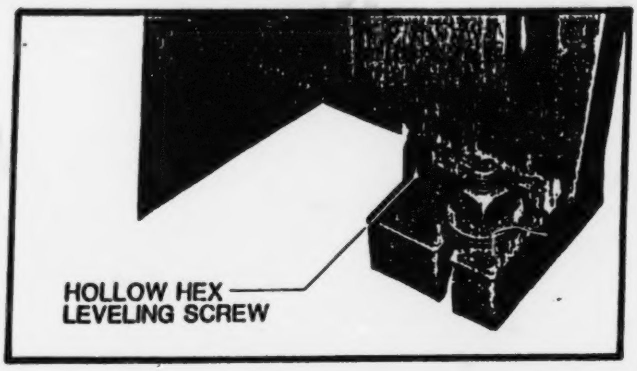
* Operator Manual. Machine Familiarization and Setup Procedures. Hitch-Feeder Model DAF 3 18 x 24. Air Feeds, Inc.

TERMINOLOGY

* Adjustable stroke cylinder
* Blank
* Die nest
* Feeder
* Feed control arm
* Feed length
* Gripper head
* Leveling rollers
* Multiple stage die
* Overbent
* Pilot pin
* Positive feed stops
* Ram
* Stock guide
* Stock straightener
* Travel distance
* Trim length

INFORMATION

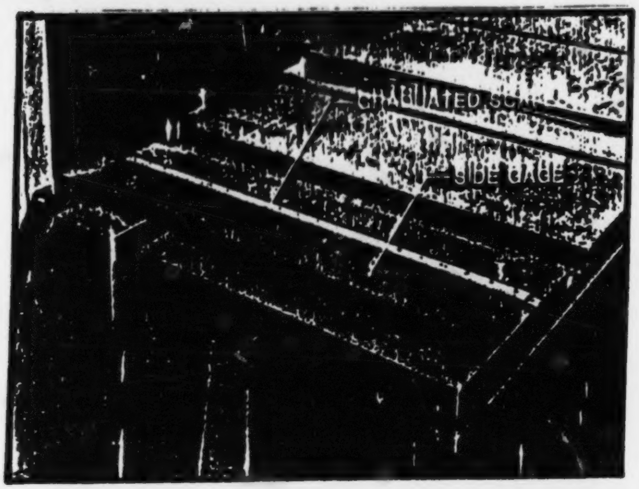
1. Leveling screws are located on the housing feet. They consist of a hollow hexagonal screw. The leveling screws are used to level up the shear so that it can be shimmed. Shears should not rest permanently on the leveling screws.



2. Power knife clearance wedge are CNC controlled devices for adjusting the knife clearance on a shear. They are located on the housing at each end of the table. In many machines, the knife clearance is done manually. CNC machines can set the clearance by the use of power wedges.

3. Table is the flat surface that holds the work piece and lower knife housings.

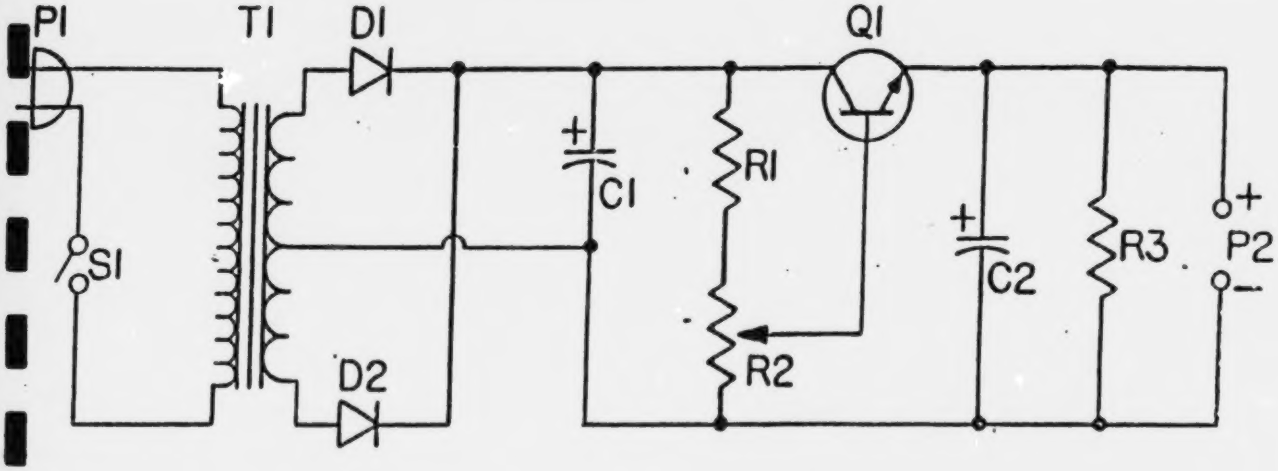
4. A side gage guides materials into the shear. It is mounted at either end of the table. The side gage is perpendicular (square) with the table knife. The side gage has a graduated scale and is equipped with an adjustable gaging stop.



Job Sheet

Construct the multi-purpose power supply as shown.

MULTI-PURPOSE POWER SUPPLY



PARTS LIST

C1 - 2000 to 3000uF Capacitor
C2 - 100 to 500uF Capacitor
D1, D2 - 1N4003 Diode
P1 - A C Line Cord
P2 - 2 Screw Terminal
Q1 - 2N3055 Transistor
R1, R3 - 1K Reaistor
R2 - 10K Potentiometer
S1 - SPST Slide Switch
T1 - 117 to 24V. C/T @.5Amp.

TYPICAL OPERATING DATA

at 12 volts you can draw up to 100 ma.
at 9 volts you can draw up to 250 ma.
at 6 volts you can draw up to 300 ma.
at 3 volts you can draw up to 400 ma.

SELF-ASSESSMENT

1. The awareness barrier can be seen from the ______________ (front, back) of the machine.

2. Accidents are caused by unsafe _________________________ and unsafe ______________________________.

3. List two types of safeguards for a hydraulic shear.

4. Why is oil or grease on the floor a safety hazard?

5. Ear plugs should be worn when noise levels exceed ________________.

6. Where is the safety plate located on the shear?

7. Why is it dangerous to wear loose or flowing clothing at the shear?

8. When should safety shoes be worn?

9. What should be done before working in the knife or holddown area?

10. What will you do if your maintenance check shows that the shear has worn and damaged knives?

SELF-ASSESSMENT ANSWERS

1. Front
2. Acts, conditions
3. Awareness barrier, operating modes, safety and specification signs
4. Causes operator to slip and fall into machinery
5. 90 decibels
6. Front cover of the machine
7. May get caught in moving parts of machine and cause injury to the operator
8. At all times on the job
9. Shut off motor and block the ram
10. Call the maintenance man

MODULE EXAM

Match the following safety terms with the appropriate descriptive phrases.

_____ 1. Inch mode

_____ 2. Single stroke mode

_____ 3. Rear barrier guide

_____ 4. Awareness barrier

_____ 5. Unsafe act

_____ 6. Unsafe condition

_____ 7. Operational safety

_____ 8. Decibel

_____ 9. Housekeeping safety

_____ 10. Safety plate

A. Unit of measurement for noise.

B. Safety violation by the operator.

C. Precautions that are found on the front cover of the shear.

D. Keeping scrap metal off the floor.

E. Operating the machine according to recommended specifications.

F. Mode used in set-up of a shear operation.

G. Safeguard for the back gage area of the shear.

H. Safety hazard that results from poor machine maintenance, dull knives, etc.

I. Operational mode that is most recommended for safe operation.

J. Point of operation guard at knife area.

MODULE EXAM ANSWERS

F 1.

I 2.

G 3.

J 4.

B 5.

H 6.

E 7.

A 8.

D 9.

C 10.

Lane
Community
College

August 14, 1987

Robert Peterson, Coordinator
Related Training Program/CED
708 Dakota Avenue
Wahpeton, ND 58075

Robert,

A few weeks ago a draft copy of the National Apprenticeship Clearinghouse directory was forwarded for your review. Presently locations in North Dakota, Tennessee, Wisconsin, Hawaii, Nevada and Burnaby, British Columbia are involved with this review.

Enclosed is a User Guide Comment Form and a postage-paid reply envelope for mailing it back to me.

As I indicated in the initial correspondence, the current format needs to undergo field test evaluation. As an initial step, I am requesting that you complete and return the User Guide at your convenience.

Please note that printing of reference double-faced tabs (five tab, total of 15) has just been completed, thereby assuring an ease of locating the desired contents. Also, the finished directory will be put in a three-hole loose leaf notebook. A copy of the notebook cover is enclosed for your review.

If you have any questions throughout this process, please contact me at (503) 747-4501, extension 2843.

Sincerely,

Carl Horstrup
Apprenticeship Coordinator &
FIPSE Project Director

BEST COPY AVAILABLE

DOWNTOWN CENTER
1059 Willamette Street • Eugene, Oregon 97401 • (503) 726-2252
An affirmative action equal opportunity institution

Lane
Community
College

August 14, 1987

Matt Galas
c/o Dupont Company
4501 Access Road
Chattanooga, TN 37415

Matt,

A few weeks ago a draft copy of the National Apprenticeship Clearinghouse directory was forwarded for your review. Presently locations in North Dakota, Tennessee, Wisconsin, Hawaii, Nevada and Burnaby, British Columbia are involved with this review.

Enclosed is a User Guide Comment Form and a postage-paid reply envelope for mailing it back to me.

As I indicated in the initial correspondence, the current format needs to undergo field test evaluation. As an initial step, I am requesting that you complete and return the User Guide at your convenience.

Please note that printing of reference double-faced tabs (five tab, total of 15) has just been completed, thereby assuring an ease of locating the desired contents. Also, the finished directory will be put in a three-hole loose leaf notebook. A copy of the notebook cover is enclosed for your review.

If you have any questions throughout this process, please contact me at (503) 747-4501, extension 2843.

Sincerely,

Carl Horstrup
Apprenticeship Coordinator &
FIPSE Project Director

DOWNTOWN CENTER
1059 Willamette Street • Eugene Oregon 97401 • (503) 726-2252
An affirmative action equal opportunity institution

Lane
Community
College

August 14, 1987

Danny O'Neill
Executive Director
Ministry of Labour
4946 Canada Way (310)
Burnaby, B.C.V5G-4J

Danny,

A few weeks ago a draft copy of the National Apprenticeship Clearinghouse directory was forwarded for your review. Presently locations in North Dakota, Tennessee, Wisconsin, Hawaii, Nevada and Burnaby, British Columbia are involved with this review.

Enclosed is a User Guide Comment Form and a postage-paid reply envelope for mailing it back to me.

As I indicated in the initial correspondence, the current format needs to undergo field test evaluation. As an initial step, I am requesting that you complete and return the User Guide at your convenience.

Please note that printing of reference double-faced tabs (five tab, total of 15) has just been completed, thereby assuring an ease of locating the desired contents. Also, the finished directory will be put in a three-hole loose leaf notebook. A copy of the notebook cover is enclosed for your review.

If you have any questions throughout this process, please contact me at (503) 747-4501, extension 2843.

Sincerely,

Carl Horstrup
Apprenticeship Coordinator &
FIPSE Project Director

DOWNTOWN CENTER
1059 Willamette Street • Eugene, Oregon 97401 • (503) 726-2252
An affirmative action equal opportunity institution

Lane
Community
College

August 14, 1987

Charles Nye
Director of Apprenticeship
PO Box 2689
Madison, WI 53701

Charles,

A few weeks ago a draft copy of the National Apprenticeship Clearinghouse directory was forwarded for your review. Presently locations in North Dakota, Tennessee, Wisconsin, Hawaii, Nevada and Burnaby, British Columbia are involved with this review.

Enclosed is a User Guide Comment Form and a postage-paid reply envelope for mailing it back to me.

As I indicated in the initial correspondence, the current format needs to undergo field test evaluation. As an initial step, I am requesting that you complete and return the User Guide at your convenience.

Please note that printing of reference double-faced tabs (five tab, total of 15) has just been completed, thereby assuring an ease of locating the desired contents. Also, the finished directory will be put in a three-hole loose leaf notebook. A copy of the notebook cover is enclosed for your review.

If you have any questions throughout this process, please contact me at (503) 747-4501, extension 2843.

Sincerely,

Carl Horstrup
Apprenticeship Coordinator &
FIPSE Project Director

DOWNTOWN CENTER
1059 Willamette Street • Eugene, Oregon 97401 • (503) 726-2252

An affirmative action equal opportunity institution

Lane
Community
College

August 14, 1987

Frank MacDonald
Labor Commissioner
State of Nevada
505 E. King Street, Room 602
Carson City, NV 89710

Frank,

A few weeks ago a draft copy of the National Apprenticeship Clearinghouse directory was forwarded for your review. Presently locations in North Dakota, Tennessee, Wisconsin, Hawaii, Nevada and Burnaby, British Columbia are involved with this review.

Enclosed is a User Guide Comment Form and a postage-paid reply envelope for mailing it back to me.

As I indicated in the initial correspondence, the current format needs to undergo field test evaluation. As an initial step, I am requesting that you complete and return the User Guide at your convenience.

Please note that printing of reference double-faced tabs (five tab, total of 15) has just been completed, thereby assuring an ease of locating the desired contents. Also, the finished directory will be put in a three-hole loose leaf notebook. A copy of the notebook cover is enclosed for your review.

If you have any questions throughout this process, please contact me at (503) 747-4501, extension 2843.

Sincerely,

Carl Horstrup
Apprenticeship Coordinator &
FIPSE Project Director

DOWNTOWN CENTER
1059 Willamette Street • Eugene, Oregon 97401 • (503) 726-2252
An affirmative action equal opportunity institution

Lane Community College

August 14, 1987

Stanley Honda, Administrator
Apprenticeship Division
Department of Labor & Industries Relations
830 Punch Bowl Street, Room 202
Honolulu, HI 32301

Frank,

A few weeks ago a draft copy of the National Apprenticeship Clearinghouse directory was forwarded for your review. Presently locations in North Dakota, Tennessee, Wisconsin, Hawaii, Nevada and Burnaby, British Columbia are involved with this review.

Enclosed is a User Guide Comment Form and a postage-paid reply

As I indicated in the initial correspondence, the current format needs to undergo field test evaluation. As an initial step, I am requesting that you complete and return the User Guide at your convenience.

Please note that printing of reference double-faced tabs (five tab, total of 15) has just been completed, thereby assuring an ease of locating the desired contents. Also, the finished directory will be put in a three-hole loose leaf notebook. A copy of the notebook cover is enclosed for your review.

If you have any questions throughout this process, please contact me at (503) 747-4501, extension 2843.

Sincerely,

Carl Horstrup
Apprenticeship Coordinator &
FIPSE Project Director

BEST COPY AVAILABLE

DOWNTOWN CENTER
1059 Willamette Street • Eugene, Oregon 97401 • (503) 726-2252
An affirmative action equal opportunity institution

USER GUIDE COMMENT FORM

We welcome your evaluation of the USER GUIDE which was forwarded to your organization during the last month. Your comments and suggestions will greatly assist the efforts of the Apprenticeship Clearinghouse staff to improve the utility and practicality of the GUIDE. Please feel free to use additional pages if necessary.

Please circle the following which best represents your evaluation of the GUIDE.

	WEAK			STRONG
Organization of the GUIDE	1	2	[✓ 3]	4
Completeness of the instructions	1	2	[✓ 3]	4
Technical accuracy of the content	1	2	[✓ 3]	4
Clarity of the included content	1	2	[✓ 3]	4
General utility of the GUIDE for field use	1	2	[✓ 3]	4

If you answered any of the above items to the weak side of the scale or have other comments or concerns about the use of the GUIDE, please explain or suggest improvements below. Please note the section and page number(s) of the GUIDE where problems or concerns are located.

COMMENTS: Tabs and ring binder format will be good additions.

Will we get a copy of the finished directory?

FROM:

Stanley Honda
NAME

Apprenticeship Division
Hawaii State Dept. of Labor and Industrial Relations
INSTITUTION OR ORGANIZATION

Are you a: User X Supervisor of Users X ?
(please check one)

USER GUIDE COMMENT FORM

WE WELCOME YOUR EVALUATION OF THE USER GUIDE WHICH WAS FORWARDED TO YOUR ORGANIZATION DURING THE LAST MONTH. YOUR COMMENTS AND SUGGESTIONS WILL GREATLY ASSIST THE EFFORTS OF THE APPRENTICESHIP CLEARINGHOUSE STAFF TO IMPROVE THE UTILITY AND PRACTICALITY OF THE GUIDE. PLEASE FEEL FREE TO USE ADDITIONAL PAGES IF NECESSARY.

PLEASE CIRCLE THE FOLLOWING WHICH BEST REPRESENTS YOUR EVALUATION OF THE GUIDE.

	WEAK			STRONG
ORGANIZATION OF THE GUIDE	1	2	[✓ 3]	4
COMPLETENESS OF THE INSTRUCTIONS	1	2	[✓ 3]	4
TECHNICAL ACCURACY OF THE CONTENT	1	2	3	4
CLARITY OF THE INCLUDED CONTENT	1	[✓ 2]	3	4
GENERAL UTILITY OF THE GUIDE FOR FIELD USE	1	2	[✓ 3]	4

IF YOU ANSWERED ANY OF THE ABOVE ITEMS TO THE WEAK SIDE OF THE SCALE OR HAVE OTHER COMMENTS OR CONCERNS ABOUT THE USE OF THE GUIDE, PLEASE EXPLAIN OR SUGGEST IMPROVEMENTS BELOW. PLEASE NOTE THE SECTION AND PAGE NUMBER(S) OF THE GUIDE WHERE PROBLEMS OR CONCERNS ARE LOCATED.

COMMENTS: Too much info about the history of —

FROM:

Matt Galas — NAME

E. I. Dupont — INSTITUTION/OR ORGANIZATION

ARE YOU A: USER ____ SUPERVISOR OF USERS ✓ ? (PLEASE CHECK ONE)

State of Wisconsin \ Department of Industry, Labor and Human Relations

BUREAU OF APPRENTICESHIP STANDARDS

Employment and Training Policy Division

201 E. Washington Avenue
P.O. Box 7972
Madison, Wisconsin 53707

October 5, 1987

Mr. Carl Horstrup
Lane Community College
40000 East 30th Avenue
Eugene, Oregon 97405

Dear Carl:

Sorry to have taken so long in completing our evaluation, but we just had a lot of trouble finding people at home to help us do the evaluation.

My first thought when I looked at the sample cover was that the work "clearinghouse" should be added after "curriculum." I guess the reason I feel that way is that we wanted this clearinghouse for so long and that is really what this catalog is.

Secondly, our feeling is that most of the supportive information such as that relating to related instruction delivery systems may not be relevant to this guide.

We also noticed that on Page 17, Item 2, that the contact for the Wisconsin State Board of VTAE was Dave Mendel. Mr. Mendel has been gone from the State Board for about seven years (which may explain why there is no telephone number). A better listing would be Apprentice Coordinator, 608-266-1207. Obviously some method may have to be designed to keep the source addresses and telephone numbers up-to-date.

Carl, we think the information is great and sincerely appreciate the opportunity to make our small contribution. Will look forward to a finished copy and we will also try to remember to continue to contribute, when the opportunity arises.

Best regards.

Sincerely yours,

Charlie

Charles T. Nye
State Director of Apprenticeship
608-266-3133

CTN:mjh

ETP-7459 (N.06/85)

USER GUIDE COMMENT FORM

WE WELCOME YOUR EVALUATION OF THE USER GUIDE WHICH WAS FORWARDED TO YOUR ORGANIZATION DURING THE LAST MONTH. YOUR COMMENTS AND SUGGESTIONS WILL GREATLY ASSIST THE EFFORTS OF THE APPRENTICESHIP CLEARINGHOUSE STAFF TO IMPROVE THE UTILITY AND PRACTICALITY OF THE GUIDE. PLEASE FEEL FREE TO USE ADDITIONAL PAGES IF NECESSARY.

PLEASE CIRCLE THE FOLLOWING WHICH BEST REPRESENTS YOUR EVALUATION OF THE GUIDE.

	WEAK			STRONG
ORGANIZATION OF THE GUIDE	1	2	[✓ 3]	4
COMPLETENESS OF THE INSTRUCTIONS	1	2	[✓ 3]	4
TECHNICAL ACCURACY OF THE CONTENT	1	2	[✓ 3]	4
CLARITY OF THE INCLUDED CONTENT	1	2	[✓ 3]	4
GENERAL UTILITY OF THE GUIDE FOR FIELD USE	1	2	3	[✓ 4]

IF YOU ANSWERED ANY OF THE ABOVE ITEMS TO THE WEAK SIDE OF THE SCALE OR HAVE OTHER COMMENTS OR CONCERNS ABOUT THE USE OF THE GUIDE, PLEASE EXPLAIN OR SUGGEST IMPROVEMENTS BELOW. PLEASE NOTE THE SECTION AND PAGE NUMBER(S) OF THE GUIDE WHERE PROBLEMS OR CONCERNS ARE LOCATED.

COMMENTS: see attached

FROM:

NAME INSTITUTION OR ORGANIZATION

ARE YOU A: USER X SUPERVISOR OF USERS X ?
(PLEASE CHECK ONE)